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U.S. Department
of Transportation

Urban Mass
Transportation
Administration

UMTA-MA-06-0049-82-2
DOT-TSC-UMTA-82-26

A Taxi Scrip Program in Seattle, Washington



**Final Report
September 1982**

**UMTA/TSC Project Evaluation Series
Service and Management Demonstrations Program**

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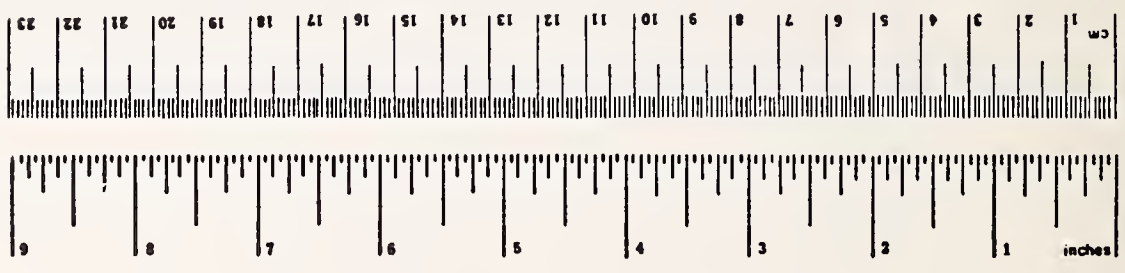
PREFACE

This report was prepared by Crain & Associates, Inc., under contract to the Transportation Systems Center (TSC) of the U.S. Department of Transportation, under sponsorship of the Office of Service and Management Demonstrations of the Urban Mass Transportation Administration (UMTA). The TSC project evaluation monitor was Bruce Spear. The UMTA project manager was Lynn Sahaj. Seattle Metro conducted a survey for the evaluation and provided numerous records. At Metro, Marilyn Watkins coordinated these efforts and served as our primary contact for information about the program. The report was written at Crain & Associates, Inc., by David Koffman. He was assisted by Pamela Bloomfield, Linda Taylor-Latter, Kris Carber, Charles Cutten, Betty Page, Andrea LaJoie and Michael Meic. The report was reviewed by John Crain and typed by Mary Jeanne McAteer, Irene Sheiner Lazarus and Molly Shinn. Richard Blinkal provided support services.

METRIC CONVERSION FACTORS

Approximate Conversions to Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
LENGTH				
in	inches	2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
AREA				
in ²	square inches	6.5	square centimeters	cm ²
ft ²	square feet	0.09	square meters	m ²
yd ²	square yards	0.8	square meters	m ²
mi ²	square miles	2.6	square kilometers	km ²
	acres	0.4	hectares	ha
MASS (weight)				
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
VOLUME				
tsp	teaspoons	5	milliliters	ml
Tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft ³	cubic feet	0.03	cubic meters	m ³
yd ³	cubic yards	0.76	cubic meters	m ³
TEMPERATURE (exact)				
	Fahrenheit temperature	$\frac{5}{9}$ (after subtracting 32)	Celsius temperature	°C



Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
LENGTH				
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
AREA				
cm ²	square centimeters	0.16	square inches	in ²
m ²	square meters	1.2	square yards	yd ²
km ²	square kilometers	0.4	square miles	mi ²
ha	hectares (10,000 m ²)	2.5	acres	ac
MASS (weight)				
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	st
VOLUME				
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m ³	cubic meters	35	cubic feet	ft ³
m ³	cubic meters	1.3	cubic yards	yd ³
TEMPERATURE (exact)				
°C	Celsius temperature	$\frac{9}{5}$ (then add 32)	Fahrenheit temperature	°F

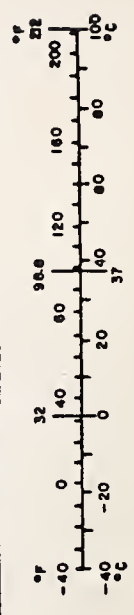


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EXECUTIVE SUMMARY

INTRODUCTION

The Municipality of Metropolitan Seattle (Metro) took over a taxi user-side subsidy program, based on the sale of discounted taxi scrip, from the City of Seattle in late 1978. Metro expanded the program, raised the discount, and conducted a marketing campaign, all leading to greatly increased program registration and use. The Transportation Systems Center (TSC) and the Office of Service and Methods Demonstrations (SMD) of the Urban Mass Transportation Administration (UMTA) approached Metro about participating in a case study which would provide information about the program to planners, policy makers and operators nationwide. Metro agreed to participate and to conduct data collections. TSC selected Crain & Associates, Inc. to perform the case study.

The Seattle scrip program differs from user-side subsidies already evaluated by SMD in four ways. First, the program serves a much more populous urban area than any evaluated so far. Second, there was no limit on scrip purchase or program use for the first two and a half years of operation. Third, the program incorporated an income test for eligibility. Fourth, Metro also operates a substantial amount of fixed-route, accessible bus service, which might also serve some travel needs of taxi scrip users.

The case study, which focuses mostly on early 1981 operations, relied on interviews with Metro staff, analysis already conducted by the staff, scrip purchase records, taxi logs maintained by the companies, a survey of scrip registrants conducted by Metro, and interviews with taxi operators.

SETTING

The scrip program serves all of King County (1979 population of 1,231,000) including the City of Seattle. The climate is relatively mild; the terrain is hilly. Transit service, also provided by Metro, is fairly extensive, with 194 routes served by 1,047 coaches. Metro's total revenue ridership in 1980 was 66 million. During early 1981 Metro operated 259 lift-equipped buses on 43 of its routes. This service experienced an average of 113 lift boardings per day, making it the most heavily used such service in the United States. Taxi service in Seattle is provided by three

large companies which operate 24-hour, radio-dispatched service, and 98 smaller ones, many of which provide prearranged service to regular customers and hail service at busy locations. As of June 1980 there were a total of 501 licenses. Since June 1979 there has been no limit on the number of cabs in operation. Cabs set their own fares; the majority charge \$1.00 to \$1.20 drop plus the same amount per mile.

PROGRAM DESCRIPTION

History

The Metro Taxicab Scrip Program began on December 1, 1978. It is part of Metro's Special Transportation Service Program (STSP), which began three months earlier and includes a subsidized van service operated by nonprofit agencies in rural and suburban areas not well served by taxicabs. The scrip program is based on a similar program, operated by the City of Seattle since 1973, which provided only a 20% discount, was funded by the taxi operators, and was available only within the city limits.

Eligibility and Registration

A person who has a yearly income at or below 70% of the Washington State median income, and who is at least 65 years old or disabled, may register for the STSP. Registrants receive a photo ID card which entitles them to buy and use taxi scrip. Registrants must show some proof of age or disability, but may merely declare their low-income status.

Scrip Procedures

Metro sells booklets containing \$10 worth of scrip by mail, at two downtown locations, at several outreach offices, and through a major chain of supermarkets. The price of the booklets (and hence the subsidy) has been changed twice since the program began; it started at \$6, was changed to \$4, and then raised back to \$5. Each booklet contains six \$1.00 coupons, six \$.50 coupons and ten \$.10 coupons. There was no limit on scrip purchases until May 1981, when Metro established limits of 25 booklets per purchase and 200 booklets per year. Registrants request taxi service in the same way as other customers. At the end of a ride with a participating taxi company, a registrant showing an STSP ID card can pay the fare, but not tips, using scrip. The taxi companies turn in the scrip to Metro along with tally sheets showing receipts by each driver. Metro issues a check for the full face value of the scrip within eight days.

Organizational Division of Responsibilities

Responsibility for the scrip program is divided among several Metro divisions, including planning, marketing, accounting and computer operations. An outside evaluation by the King County Division on Aging claimed that this arrangement causes problems. Metro staff feel that it is a reasonable way to manage the program within Metro's existing structure.

Program Abuse

The purchase limits instituted in May 1981 were a response to continuing abuse of the program by a handful of registrants who were selling large amounts of scrip to taxi operators for a profit. One other known form of abuse is not so troubling to Metro: taxi operators who do not participate in the program occasionally accept scrip for payment and then sell it to a participating company, which in turn gets it redeemed by Metro.

Service Quality and Cost

Service is provided by all three major taxi companies and 23 smaller companies (as of early 1981), and is available 24 hours a day to most areas of King County. The service is an exclusive-ride service with metered fares. Riders can group themselves, paying between zero and \$.50 per extra rider for basic daytime service, depending on the company. Most users feel they receive the same quality of service as cash-paying taxi patrons. Most participating companies charge between \$1.00 and \$1.20 drop and the same amount per mile.

DEMAND

Registration

By mid-1981, about 10,000 people had registered for the STSP. Registration has been continuing; nearly half of all registrants joined the program in the year since the subsidy was increased from 40% to 60% (in June 1980). Marketing in the late summer of 1980 appears to have played a major role in increasing registration. Elimination of the income requirement for the disabled in April 1980 (reinstated in September 1981) does not appear to have had a significant impact on registration rates. About 70% of registrants live in the City of Seattle, closely paralleling the estimated distribution of eligible people in King County.

Use Rates

Sixty-two percent of STSP registrants considered themselves current taxi scrip users in April 1981. In the first seven months

of 1981 users averaged 1.82 one-way trips per month at an average fare of \$5.41 per trip. Over 10,000 trips per month were being made using scrip in early 1981. Although most users make very few trips, some users make frequent use of scrip. Logs kept by the taxi companies in April and May 1981 indicate, however, that fewer than 1% of users use scrip at a rate higher than the annual limit of \$2000 per year established in May 1981.

Market Penetration

It is estimated that 13% of the eligible population was registered for STSP in July 1981. This rate is low compared to other user-side subsidies studied by SMD. No analysis was conducted to explore reasons for this low market penetration. However, possible reasons may include a lack of promotion and the high level of transit service available in Seattle.

Travel Characteristics

The most common use of the scrip program is for medical trips (59% of users), followed by shopping trips (28%) and personal business trips (16%). Forty-five percent of recent trip makers used the taxi in combination with other modes at least some of the time, most commonly using the bus going and the taxi returning (30% of recent users). The average fare paid per trip rose steadily from the beginning of the program until 1981, beginning at a little over \$3.00 and climbing to \$5.41 in early 1981. The reason for the climb is not known.

Impact on Users

Fifty-two percent of users feel that they travel by taxi more often as a result of the scrip program; of them 56% said that some of their increased taxi use represents trips shifted from other modes, most notably from the bus (18% of all users).

User Characteristics

Users are quite elderly; the median age is 74 years. Eighty-four percent are women. Only 7% are black or of other ethnic or racial minorities. Eighty-six percent have annual incomes under \$7,500, 84% consider themselves retired, and 74% live alone. A small minority use any mechanical aids or have serious disabilities. Only 11% have a driver's license and a vehicle available to drive. The travel mode used most by scrip users is the bus; 46% used the bus at least once in the week preceding a survey. Eighty-seven percent live within a five-minute walk of a Metro bus stop.

Scrip Sales and Use

Scrip sales have generally led scrip use, by a lot at first, by much less later in the program. Initial high levels of scrip purchases produced a backlog of outstanding scrip. By early 1981 the amount of scrip bought but not yet used was down to less than one month's worth of use.

Scrip Purchase Behavior

Most users buy their scrip at either of two downtown locations (57%) or by mail (25%). Corresponding to the low average use rates already noted, 88% of scrip purchasers buy an average of less than one booklet per month. However, the median purchase is 2.4 booklets, indicating that users generally buy enough for several months. In 1980, only three individuals bought over 200 booklets (the limit set in May 1981). However, in the first five months of 1981, 11 individuals had already bought 100 or more booklets.

Scrip Registrants and Transit Use

In the survey of scrip registrants, 48% had used the bus in the past week, making a median of 4.2 trips, while 22% had used the taxi, making a median of 2.1 taxi trips. These figures, and the preponderance of users making medical trips by taxi, indicate that the relatively expensive taxi is used comparatively infrequently and for trips for which no other practical mode is available.

Forty-three percent of registrants report some difficulty using buses, and 30% report difficulty getting on or off a bus. Registrants having difficulty getting on or off a bus were questioned about awareness, availability and use of lift-equipped buses. Of the 30%, 70% were aware of the buses; of this 70%, 45% said lift bus service was available for their usual trips; of this 45%, only 30% (or 3% of all registrants) had ever used the lift on a Metro bus. Further analysis shows that, in addition to lack of awareness and unavailability of service, the primary reasons for not using lift bus service are either lack of need or inability to use it.

A comparison of scrip users and lift users (based on a survey of 73 lift users) shows several clear differences. Scrip users are mostly elderly, but only 6% use wheelchairs; very few lift users (8%) are over age 65, and almost all (92%) use wheelchairs. For most trip purposes, scrip registrants make less use of the taxi than lift users do of the bus; this is especially so for work trips. Only for medical trips is the pattern reversed.

Choice of Taxi Company

Eighty-six percent of recent taxi users generally call one particular company. Reasons given focus on generally better

service (68%), helpful drivers (27%) and familiarity (12%). Only 11% cited lower fares as a primary concern. The company used most (also the largest company in Seattle) has slightly higher fares than the other two major companies.

PROVIDER IMPACTS

Subsidy Cost

Metro paid approximately \$149,000 to subsidize taxi trips in 1980 and about \$417,000 in 1981. The subsidy per trip in early 1981 was \$3.25. In September 1981, the subsidy was decreased from 60% to 50%, largely in order to control the projected subsidy cost.

Administrative Cost

Based on interviews with Metro staff, the evaluator has estimated that it costs Metro about \$6,200 per month to administer the scrip program, or \$.61 per trip at early 1981 use rates. About 300 hours per month of staff time account for 60% of the administrative cost.

Effect on Taxi Companies

Owners or managers of seven taxi companies were interviewed, including the three largest (accounting for 90% of scrip used), two medium-sized companies, and two one-cab firms. For the most part, all had positive things to say about the program. Scrip is more important, and has had a more positive effect, for the major companies than for the smaller ones. No one felt that scrip had hurt their business. The interviewees tended to see the program paperwork as a burden, but not an excessive one. All described driver attitudes as positive or neutral.

1. INTRODUCTION

1.1 BACKGROUND

This case study has been conducted by Crain & Associates, Inc. for the Transportation System Center (TSC). In connection with its responsibility for evaluating projects for the Office of Service and Methods Demonstrations (SMD) of the Urban Mass Transportation Administration (UMTA), TSC carries out research on transportation developments related to the objectives of the SMD program. Transportation for disadvantaged groups, including the elderly and handicapped, is one of the major emphases of the SMD program. TSC has sponsored and is now sponsoring evaluations of SMD projects demonstrating subsidized taxi service, and particularly user-side subsidies for the elderly and handicapped, and has conducted and sponsored case studies of locally-initiated user-side subsidies. These case studies and evaluations are intended to provide information to planners, policy makers, and operators nationwide concerning the appropriateness, feasibility, and cost effectiveness of meeting elderly and handicapped transportation needs by means of providing subsidized taxi service.

The Municipality of Metropolitan Seattle (Metro) took over a taxi user-side subsidy program, based on the sale of discounted taxi scrip, from the City of Seattle in late 1978. Metro expanded the program to most of King County, raised the discount, and marketed the program. Metro's taxi scrip program is similar in many ways to others already evaluated by SMD; however, it includes several distinctive features which make it worthy of national interest. Therefore, TSC and UMTA determined that it would be valuable to document Metro's experience. Metro agreed to work with Crain & Associates to provide the information needed. UMTA provided financial assistance to Metro for the necessary data collections and staff time.

1.2 CASE STUDY OBJECTIVES AND ISSUES

The case study attempts to determine the effects of several unusual features of the program. First, Seattle is a much larger city than any of the others in which taxi user-side subsidies have been studied so far. Most user-side subsidies studied so far have been in small to medium-sized cities. They have generally worked well, but the question has remained: will the concept work in a larger city? The Seattle SMSA is the 23rd largest in the U.S., and is similar in size to the Denver,

San Diego and Cincinnati SMSAs. Therefore, the Seattle taxicab scrip program provides an opportunity to observe what difficulties might occur in a reasonably large city.

Second, the Seattle program had no limit on scrip purchases until May 1981, and continues to have limits somewhat higher than any of the SMD projects demonstrating user-side subsidies. Moreover, data on individual trip making and scrip purchases are available in order to evaluate the effect of allowing unlimited travel until May 1981.

Third, Metro's taxi scrip program incorporates an income test for eligibility. In order to qualify for the program, a person must have an annual household income less than 70% of the state median income for households of the same size, and must also be elderly or handicapped.* Therefore, the case study has attempted to document the workings of this income test, its administrative feasibility, and its effect on the target population.

Fourth, Seattle also has extensive transit service, including some of the nation's most successful lift-equipped bus service. As a result, Seattle presents an opportunity to examine differences in users and trips on two modes frequently proposed as solutions for the mobility needs of the handicapped.

1.3 CASE STUDY APPROACH

The case study has relied on:

1. Interviews with Metro staff;
2. Analysis already conducted by Metro staff;
3. Records of scrip purchases already in Metro's computer files;
4. Taxi logs maintained by the companies and collected by Metro especially for this evaluation;
5. A survey of scrip registrants conducted by Metro for this evaluation;
6. Interviews with taxi operators.

Most of the data and associated analysis refers to early 1981 operations. Basic data on use and operations from the beginning of the program through mid-1981 are provided.

*Between April 1980 and August 1981, the income requirement was lifted for the handicapped only.

2. SETTING

2.1 GENERAL INFORMATION

Seattle is located in northwestern Washington state, on Puget Sound. The terrain is hilly. The climate is relatively mild and moist. Days with temperatures above 90° in the summer or below 32° in the winter are few. Precipitation averages 36 inches per year, of which 82% is concentrated between October and April. Winter snowfall averages a total of 9 inches; snow seldom remains on the ground more than one or two days at a time.

Seattle is the major city in King County, which covers 2,128 square miles, including 28 incorporated cities. The 1979 population of King County was estimated to be 1,321,500, concentrated in the western third of the county. Development patterns within the service area vary from densely-populated urban to sparsely-populated rural. About 10% of the population is age 65 or older. The percentage of transportation handicapped is believed to be close to the national average of 5.5%

2.2 TRANSIT SERVICE

2.2.1 General

Transit service is provided by the Municipality of Metropolitan Seattle (Metro). Metro operates transit service in most areas of King County, except some of the least densely populated rural areas. The majority of service is oriented toward the Seattle Central Business District (CBD), where transfer connections can be made to other parts of the system. Frequency of service varies from every ten minutes in areas close to the CBD to every 60 minutes, or only at peak hours, in the suburban and outlying areas.

The basic one-zone fare is \$.50; two-zone trips cost \$.75, while trips within the downtown area are free. Elderly and handicapped pay \$.15 for one or two zones at any time of day. Youth pay only the regular one-zone fare for any trip. Guide dogs and lap dogs ride free; all other animals pay the base fare for the human accompanying them. Transfers are free and are good for one hour with no restriction on direction. Monthly passes cost \$19 for regular one-zone trips, \$28.50 for two-zone trips, and \$2 for elderly and handicapped.

Metro operates 194 routes using a fleet of 1047 coaches, including 150 articulated buses and 109 electric trolley buses.

TABLE 2-1. METRO ANNUAL OPERATING STATISTICS, 1974-80.

<u>YEAR</u>	<u>REVENUE PASSENGERS</u>		<u>REVENUE VEHICLE HOURS</u>		<u>REVENUE VEHICLE MILES</u>	
	<u>TOTAL</u>	<u>% of 1974</u>	<u>TOTAL</u>	<u>% of 1974</u>	<u>TOTAL</u>	<u>% of 1974</u>
1974	35,468,000	100%	1,576,306	100%	21,289,687	100%
1975	38,001,000	107	1,725,000	110	23,337,269	110
1976	41,464,000	117	1,778,000	113	24,092,678	113
1977	44,905,000	127	1,803,000	114	24,301,151	114
1978	49,460,654	139	1,870,129	119	25,573,365	120
1979	56,259,153	159	2,023,838	128	27,619,332	130
1980	66,071,730	186	2,269,442	144	31,691,419	149

In August of 1981, Metro had 259 lift-equipped buses and 17 lift-equipped trolleys. (As of 1980, the 10 trolley bus routes were served by diesel buses pending renovation of the overhead power network. During 1981, Metro began restoring trolley bus service.) Thirty-five additional diesel coaches are held in reserve for occasional peak-hour service as needed. Fourteen permanent park-and-ride lots are located throughout Metro's service area, providing nearly 5,700 parking stalls. Twenty-three interim (temporary) park-and-ride lots provide 1,700 additional parking stalls. Passenger shelters have been installed at 973 of Metro's 7,800 bus stops. Metro's 1980 operating expenditures were \$77 million.

In 1980, Metro carried over 66 million passengers, an increase of 17% over the previous year. The growth rate is expected to be much lower for the next two or three years. Table 2-1 shows the growth rate in passengers, vehicle hours, and vehicle miles for 1974-1980. Express trips accounted for 21.6% of 1979 average weekday bus hours. Fifty-eight percent of average weekday ridership was in the AM and PM peak hours (four hours). Reduced fare passengers (elderly or disabled people) accounted for 14% of the total ridership.

Most neighborhoods within the Seattle city limits feature sidewalks and curbs except for the area north of 85th Street, parts of the southeast section, and West Seattle. In suburban and rural areas, paved sidewalks are rarely seen outside of business and shopping areas. The City of Seattle is following an aggressive curb cut program in the CBD, neighborhood shopping and business centers, and the hospital area.

2.2.2 Elderly and Handicapped Transportation

Metro provides transportation for the elderly and handicapped in two additional ways, aside from taxicab scrip. In areas where taxi service is considered poor, Metro subsidizes the operation of a van service by two multiservice centers. The subsidy formula is based on the number of trips provided. In 1980 these two van programs provided 33,000 trips; Metro's subsidy to the operators was about \$73,000.

In August 1979 Metro began implementing lift-equipped bus service on its regular routes. During most of 1980, 23 of Metro's most heavily used routes had at least hourly accessible service provided using a fleet of 143 buses equipped with front-door lifts. In February 1981 accessible service was extended to 46 routes served by 259 lift-equipped buses. In addition all ten of Metro's trolley bus routes are being converted to accessible operation. By December 1981, Metro operated 316 lift-equipped

buses on 59 routes, including 57 trolley buses on six routes. Another 201 articulated buses expected in early 1982 will be equipped with lifts. The Seattle accessible service is one of the most successful in the U.S. During most of 1980, boardings averaged 56 per day. Boardings in early 1981 averaged 113 per day. The service has been very reliable. Further detail on the accessible bus service in Seattle is provided in another case study evaluation conducted by the SMD program.*

2.3 TAXICAB SERVICE

Taxi service in Seattle is provided by three large companies and 98 smaller companies, many operating only a single cab. The larger companies are radio-dispatched and provide 24-hour service. The smaller companies provide pre-arranged service to regular customers and hail service at busy locations. A few companies primarily serve the airport. As of June 1980 there were a total of 501 licenses. In June 1979 Seattle's taxicab regulations were changed to remove limits on the number of taxicabs in operation and to allow cabs to establish their own fares.** Many of the one-cab operations were formed after the relaxation of entry restrictions. Each company can change its fare as often as four times a year. The majority of companies charge from \$1.00 to \$1.20 drop plus the same amount per mile.

*David Koffman (Crain & Associates, Inc.), Lift-Equipped Bus Service in Seattle, Washington, UMTA/TSC Project Evaluation Series. Report No. UMTA-MA-06-0049-81-4, January 1982.

**See Pat M. Gelb, Robert M. Donnelly, and Lidano A. Boccia (DeLeuw, Cather & Co.), Taxi Regulatory Revision in Seattle: Background and Implementation, UMTA/TSC Project Evaluation Series, Report No. UMTA-MA-06-0049-80-17, September 1980.

3. PROGRAM DESCRIPTION

3.1 HISTORY

The Seattle Metro Taxicab Scrip Program is part of Metro's Special Transportation Service Program (STSP), which began in September 1978. It includes the taxicab scrip program and a "demonstration project" using non-profit agency vans in rural and suburban areas not well-served by taxicabs. On April 20, 1978 the Metro Council adopted an Elderly and Handicapped Transportation Policy which included a commitment to fully accessible transit and a system of special services for which the Council set aside 5% of Metro's UMTA Section 5 (Tier 1) assistance. A staff study on implementing the special service component of the policy recommended the combination of taxicab fare subsidies and non-profit van service.

The Metro scrip program began on December 1, 1978. It is based on a scrip program operated by the City of Seattle beginning in 1973. The City of Seattle scrip program provided only a 20% discount, was paid for by a tax on the taxicab operators, and sold about \$20,000 in scrip per year, corresponding to roughly 7,000 one-way trips. In taking over the scrip program, Metro expanded its coverage to all of King County, increased the subsidy to 40%, and relieved the taxicab operators of the burden of funding the discount. In June 1980 Metro further increased the discount to 60%. In September 1981 it was moved back down to 50%.

3.2 ELIGIBILITY AND REGISTRATION RULES

Those eligible for the STSP program are people 65 years of age or older, or disabled, and with a yearly income at or below 70% of the Washington state median income. These are the same eligibility requirements used by the City of Seattle scrip program. The income limits are based on household size. They are determined periodically by the State Department of Social and Health Services for use in its own programs. The limits which have been in force recently are shown below:

<u>Household Size</u>	<u>Before September 1980</u>	<u>After September 1980</u>
1	\$ 7,356	\$ 7,833
2	9,617	10,227
3 or more	11,882	12,642

Beginning on April 4, 1980, disabled people of any income were made eligible for the program. However, in September 1981 the income limit for disabled was re-instituted as a cost-saving measure, along with an increase in scrip price. The re-instituted income requirement was made retroactive. That is, any disabled individuals who registered between April 1980 and September 1981, whose income exceeded the re-instituted limits, were expected to stop using the program.

People who wish to use the taxicab scrip program register for the STSP at Metro's Customer Assistance office (CAO), the Mayor's Office for Senior Citizens, at two outlying multiservice centers and at outreach events carried out by Metro. Registrants pay one dollar and receive a Metro reduced-fare photo ID with a special STSP sticker and number on the back. Registrants who already have a reduced fare card receive the STSP sticker and number without charge. Registrants are supposed to show some proof of age or disability.* Eligibility under the income restriction is based entirely on self-declaration. Figure 3-1 shows a flyer distributed by Metro, explaining eligibility, registration and scrip procedures.

3.3 SCRIP PROCEDURES

This section provides an overview of scrip printing, distribution, use, and redemption. Metro orders the scrip from Globe Ticket Company in Tacoma. Each scrip booklet has a 6-digit serial number which is printed on the cover and on each piece of scrip or coupon. Each \$10 booklet contains six \$1.00 coupons, six \$.50 coupons, and ten \$.10 coupons. Each different type of coupon is color-coded and has a distinct pattern of notches on the coupon edges, to make them tactually distinguishable by the blind. The contents of one book are shown in Figure 3-2. The scrip is sold by mail, at the CAO, at the Mayor's Office for Senior Citizens, at outreach offices in several "little city halls," at some social service agencies, and at all 28 Albertson's supermarkets in King County (which also sell regular Metro passes). Most of the scrip is sold by mail and at the two downtown locations, namely the CAO and the Mayor's Office for Senior Citizens (see Section 4.9). Metro pays the social service agencies and the Albertson's stores \$.40 per pass or scrip booklet sold. Metro supplies the outlets with record-keeping materials and point-of-purchase signs and displays. For each sale, the outlets are asked

*A broad definition of "disabled" is used. Metro Council Resolution No. 3751 defined the disabled as: "those persons who, by reason of illness, injury, congenital malfunction, or other permanent or temporary incapacity or disability, including those who are non-ambulatory wheelchair-bound and those with semi-ambulatory capabilities, are unable without special facilities or special planning or design to utilize the Municipality's regular public transportation facilities and services as effectively as persons who are not so affected."

Metro Taxicab Scrip Purchase-By-Mail Form



Helpful Hints
 You can help Metro and participating cab companies serve more people if you:

- 1** Take the bus whenever you can. Your Metro Reduced Fare Permit lets you ride the bus for 15¢ on regular Metro routes anywhere in King County. Or you can purchase a Reduced Fare Monthly Pass—it costs only \$3 and lets you ride as often as you like for a whole month. If you must use a bus that is wheelchair lift-equipped, check a timetable for your route to see if accessible service is provided—or call 447-4800 for information on routes offering wheelchair accessible service.
- 2** Ride in groups. Remember—you can save money by sharing the cab with other people.
- 3** Avoid traveling during rush hours (7-9 a.m. and 4-6 p.m.)

If you need more information or would like to make comments about the Taxicab Scrip Program, call 447-4824.

Name _____

Address _____

City _____ Zip _____

Phone _____

Script ID No. _____

Number of Scrip Books requested at \$4.00 per book _____

Total amount enclosed (Number of books - \$4.00) \$ _____

(Please use check or Money Order)

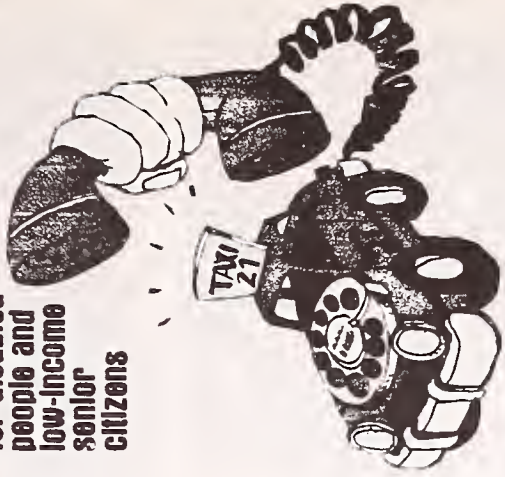
If you have registered for the Taxicab Scrip Program, your ID number is located on the back of your Metro Reduced-Fare Permit. If you have any questions, please call Metro at 447-4824. Mail form and check or money order to:

Taxicab Scrip Purchase
 Metro Customer Assistance Office
 821 - 2nd Avenue, Seattle, WA 98104

7/1980

Metro's Taxicab Scrip Program

for disabled people and low-income senior citizens



CALL 447-4824

FIGURE 3-1. SCRIP FLYER (FRONT)

Discounts on cab fares when you can't take the bus



Metro offers taxicab scrip at a discounted price to disabled people or low-income senior citizens who have no other means of transportation. Although many Metro routes have lift-equipped buses for riders who are in wheelchairs or unable to climb steps, there are still some areas where bus transportation for elderly or handicapped people is limited. If you qualify for the Taxicab Scrip Program, you may purchase books worth \$10 of taxi rides for just \$4.

Who is eligible?

If you are disabled, you are eligible for the Taxicab Scrip Program. You also qualify if you are age 65 or older and your yearly household income is below \$7,356 for one person, \$9,619 for two people or \$11,882 for three or more people.*

*In late 1980, there may be adjustments in Taxicab Scrip income eligibility requirements for senior citizens. For current eligibility information, call 447-4824.

How to register

If you meet eligibility requirements, you may register for the Taxicab Scrip Program at Metro's Customer Assistance Office (4th Floor of the Exchange Building at Second and Marion, Seattle). The office is open Monday between 8 a.m. and 5:30 p.m. and Tuesday through Friday from 8 a.m. till 5 p.m. Bring proof of age or disability (for example, a Metro-Reduced Fare Permit, birth certificate, VA card, etc.)

If you already have a Metro Reduced Fare Permit, registration for the Taxicab Scrip Program is free. If you don't have a Reduced Fare Permit, a \$1 fee will pay for both that and your Taxicab Scrip registration.

For other locations in King County where you may register, please call Metro at 447-4824.



Buying Scrip

Once you have registered, you may purchase any number of \$10 books of taxicab scrip for just \$4 each. Scrip books are available at Metro's Customer Assistance

Office, the Mayor's Office for Senior Citizens (Room 315, 1331 Third Ave., Seattle) and all Albertson's Food Centers in King County. You also may purchase scrip by mail. Mail forms are available at the Customer Assistance Office, or you can use the one on the back panel of this brochure.



How to Use the Service 447-4824 625-4834

For names of participating cab companies in your area, phone 447-4824 or 625-4834. Some companies offer special lower rates if you are willing to share your ride with other passengers. Other companies provide wheelchair accessible taxi-van service, upon request.

After you have selected your cab company, just call to request a taxi. When it arrives, show the driver your Metro Registration Card. You may then use scrip to pay all or part of your fare—however, scrip may not be used for tips.

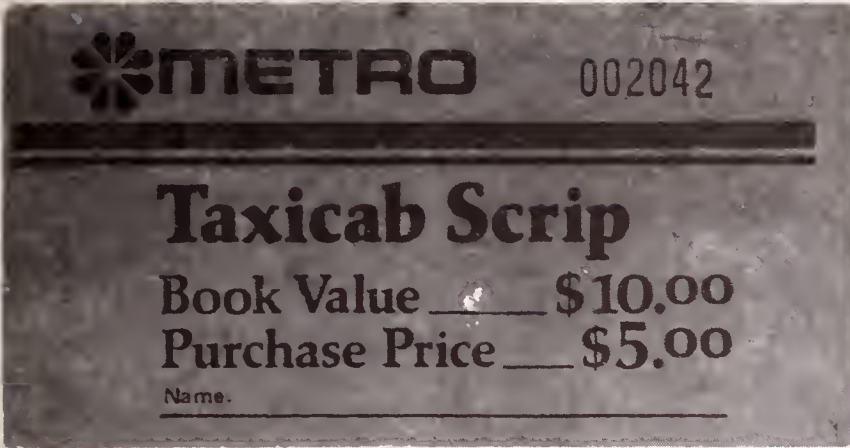
Refunds

You may request a refund (purchase price) for unused scrip coupons. Just bring your unused coupons to Metro's Accounting Office (7th Floor of the Exchange Building at Second and Marion, Seattle) between 8 a.m. and 5 p.m., Monday through Friday. Only unused scrip coupons that remain in the Scrip Book, and have the same serial number as the Book, will be redeemed. Refunds will be at 40% of face value since the \$10 book costs only \$4.

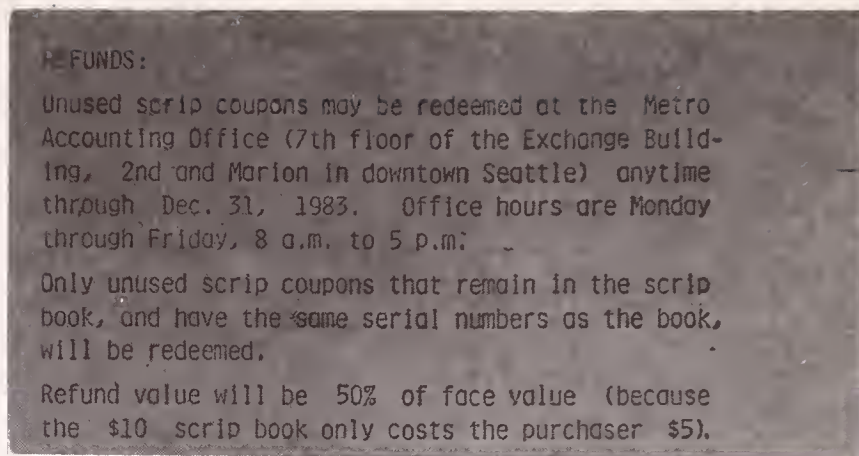
\$10 worth of taxicab service for just \$4



FIGURE 3-1, CONT'D. SCRIP FLYER (REVERSE)



Front cover



Inside front cover



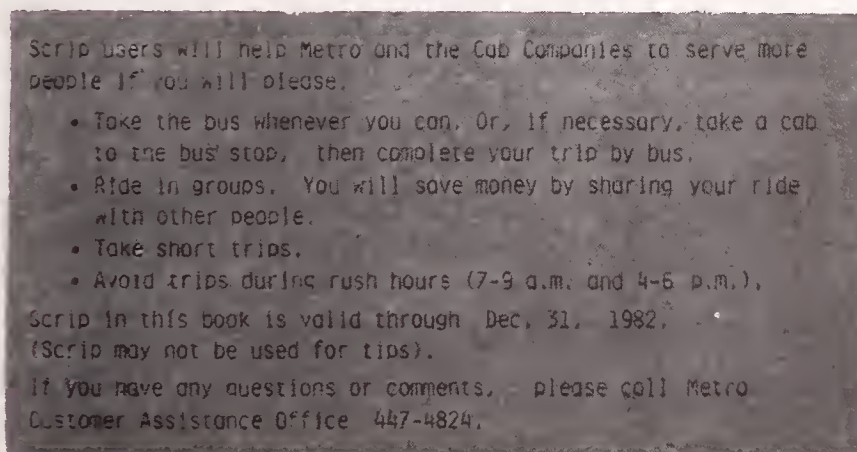
3 salmon-colored pages



3 blue pages



5 pink pages



Inside back cover

FIGURE 3-2. CONTENTS OF SCRIP BOOKLET

to record the booklet serial numbers, the quantity sold, the purchaser's ID number and the date of purchase. The outlets do not always use the forms provided and the records are often incomplete or illegible.

Registrants may buy up to 25 booklets at a time and 200 booklets per year at \$5 per booklet.* They request taxi service in the same manner as other taxi patrons, and need not say that they plan to pay with scrip. However, there are some taxi companies which do not accept scrip, so some users ask about paying with scrip when they request service. At the end of a ride, a registrant shows the driver an STSP photo identification card and pays with scrip. Scrip is not supposed to be used to pay tips.

The drivers are supposed to record the fare amount and the rider's identification number for every scrip trip. Only Yellow Cab and a few of the very small companies have enforced this requirement. The others merely keep a record of each driver's total scrip receipts turned in each day. Lease drivers generally receive cash for their scrip when they turn it in. Each company counts and batches the scrip by denomination** and turns it in to Metro along with the corresponding "tally sheets," which show the receipts by driver and date, and user ID numbers if they were recorded (see Figure 3-3). There is no fixed schedule for turning in the scrip for reimbursement. The larger companies turn in scrip as often as two or three times a week; some small companies bring in scrip less often than once a month.

Metro's Accounting Department spot checks the returns. The scrip in a few bundles is counted and the addition of the tally sheet totals is checked for accuracy. Small errors are occasionally found, which are usually ignored. The small companies' tally sheets are checked for addition errors which, as often as not, turn out to be in Metro's favor. Metro then issues a check to the taxi company for the scrip. The elapsed time from receipt of scrip to issuing a check ranges from three to eight days depending on the day of the week the scrip is received.

3.4 DIVISION OF RESPONSIBILITIES WITHIN METRO

Numerous divisions of Metro are involved in the scrip program. There is no one office or branch which runs the scrip program; rather each aspect of the program is handled by the office whose general function suits it to that aspect. Figure 3-4 shows the location within the Metro organization of the offices which have a major involvement in the scrip program.*** Most scrip functions are in the Transit Department.

*The price was increased from \$4 per booklet in September 1981.

**Whole scrip books are batched separately.

***All departments are shown. Below the department level only the divisions and offices with a scrip function are shown.

SCRIP TALLY

NAME OF TAXI COMPANY Jarmel	FOR PERIOD	FROM	TO 4-21-81
---------------------------------------------------------------------------------------------	------------	------	---------------

DATE	DRIVER'S NAME OR CAB NO.	SCRIP AMOUNT
4-21-81	SPENCER ABO A07316 AAO D7662 ABAAO	9 40
	FISS ABO A06693 ABO A06693 ABO A02011	13 80
	A00 EVANS A07962 BAO A03072 ABO A07557	10 70
	BEST A0A A07270	14 90
	TITCOMB AAO A07140 BAO A08795 BAO A08234	15 60
	CUMES AAO A9571 BAO A0313	13 30
	AMES ABO A07177 BAO A0714 ABO A06691	14 20
	BELL AAO A07359 ABO A02421	10 20
	KELLY ABO A0666 ABO A06454 ABO A0561 ABO A02272	8 80
	COPPES ABO A0631 BAO A09620 BAO A08290	15 50
	VICTOR BAO A08266 ABO A02271 BAO A0115	22 10
	BLAIR ABO A06224 AAO A9174 ABO A0463	13 50
	LINDEN A0 A07617	14 00
	COLE ABO A02691 AAO A0913	12 90
	NOEL AAO A02630	25 90
	GRESS BAO A9217 BAO A9510 ABO A06787	34 40
	ROSS ACO A05641 ABO A06421	24 90
	METZ AAO A07651 BAO A08696	30 00
	BENN BAO A9547 AAO A05081	22 80
	AUSTIN AAO A0771 BAO A08356	61 10
	EWING ABO A06687 AAO A07662 AAO A08056	16 30
	STURGEON AAO A03001	14 60
4-21-81		

TOTAL SCRIP THIS SHEET	419 20
------------------------	--------

FOR REIMBURSEMENT	
SUBMIT ALL TALLY SHEETS WITH INVOICE AND SCRIP TO:	METRO ACCOUNTING DIVISION - MAIL STOP 74 EXCHANGE BLDG. 7TH FLOOR 821 SECOND AVE. SEATTLE, WA 98104

0853 (REV. 2/79)

FIGURE 3-3. SAMPLE SCRIP TALLY SHEET

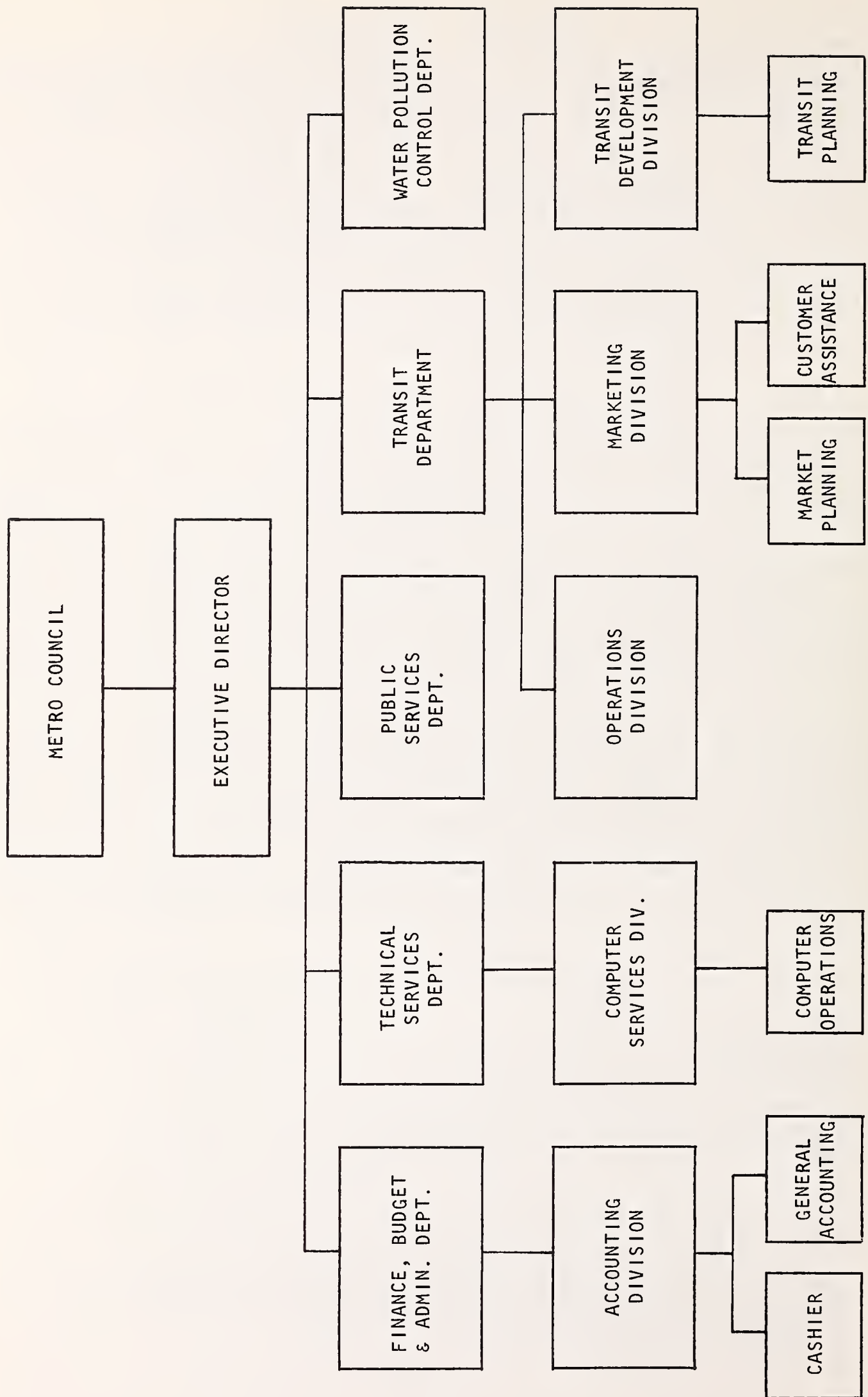


FIGURE 3-4. LOCATION OF SCRIP FUNCTIONS IN METRO ORGANIZATION

The STSP program was developed by Transit Planning, in the Transit Development Division. Transit Planning continues to monitor the program, make progress reports, make recommendations for changes, and set policy. Transit Planning also manages the contracts with the taxi operators. Responsibility for day-to-day administration of the program has mostly been transferred to another division within the Transit Department, namely Marketing.

The Marketing Division includes Market Planning and Customer Assistance, which runs the public Customer Assistance Office (CAO). The CAO has prospective users fill out registration forms and issues ID cards. It also receives completed registration cards from the other offices which carry out registration. Customer Assistance sells scrip and keeps a record of these sales, both at the CAO and by mail order. The Pass Sales Coordinator (in Customer Assistance) signs up new pass and scrip outlets and services the outlets, including the Albertson's stores and the outreach offices of the Mayor's Office. Market Planning designed the scrip and orders it from the Globe Ticket Company (the printing is billed to Operations). Market Planning also designed and produced promotions of the scrip program.

Until September 1981 the budget for the scrip program was assigned to a third division in the Transit Department, the Operating Division. This was done on the theory that the program, once developed, would be an on-going transportation service, which would normally be the responsibility of the Operating Division. In fact the Operating Division has very little involvement in the scrip program. As of September 1981 the budget has been assigned to the Transit Development Division.

Several important functions are carried out by the Accounting Division of the Finance, Budget and Administration Department. The Head Cashier's office (located at Central Operating Base) serves as a scrip distribution center. The cashier receives the scrip ordered by Customer Assistance from Globe Ticket Company. The cashier delivers scrip as needed to the CAO and the Mayor's office, the major scrip sales locations. When the supply at the Cashiers office runs low, they ask Market Planning to order more. A second office within the Accounting Division, called General Accounting, receives money from scrip sales, daily sales records, and cash balance sheets, checks the money against the records, and sends the records to the Customer Relations Representative in Customer Assistance (who sends them to Computer Services for keypunching.) General Accounting receives used scrip and scrip tally sheets from the taxi companies, checks these for consistency, and issues checks to the taxi companies. General Accounting has been storing all the used scrip pending a decision on whether it can be thrown away. Finally, General Accounting issues refunds for unused scrip (about 700 booklets in 1981).

Metro has a Computer Services Division located in the Technical Services Department. Computer services maintains updated computer files of registration cards and sales records. It provides updated lists of these to other departments. The other departments can also access the data from their own terminals.

To an outsider this division of responsibilities seems confusing. In fact an evaluation conducted for the King County Division on Aging criticized Metro for poor internal coordination and unclear division of responsibility, particularly between Transit Planning and Customer Assistance. The Metro planner who was primarily responsible for developing and monitoring the program feels that it works well enough. She acknowledges that the system depends on a lot of informal communication and individual initiative at the staff level. However, she feels that there is no better way to implement the program within Metro's existing structure.

3.5 PROGRAM ABUSE

It seems that four or five registrants have been purchasing large amounts of taxi scrip at the subsidy price of \$4.00 per book and selling the scrip to taxi drivers for \$6.00 or \$7.00 per book. The taxi companies then redeem the scrip at its face value: \$10.00 per book. The individuals purchasing and selling the scrip are, for the most part, eligible for the program because of mental disabilities or alcoholism: they are young, able-bodied, and destitute. Metro learned of this problem from taxi drivers who were approached at bus depots by the individuals selling the scrip; instead of buying it, some called Metro. One of the worst offenders is now in jail, apparently on a multiplicity of charges. The others may still be reselling the scrip. As long as the taxi driver records ID numbers on the scrip, the taxi companies have no way of knowing how the scrip was acquired by the driver.

In response to this continuing abuse of the program, the Advisory Committee decided to set limits on the sale of scrip to individuals. In May 1981 scrip program registrants were restricted to 25 books per purchase not to exceed 200 books per year. Metro sent a letter to the taxi companies informing them of this plan and requesting their cooperation. Scrip vendors are to enforce the 25-books-per-purchase limit. The 200-book-per-year limit is enforced by Metro, which keeps a computerized file consisting of keypunched sales transaction records. A printout can be obtained periodically showing all scrip purchases sorted by the ID number of the purchasers. One difficulty with this system is that some outlets do not keep careful records or are slow in sending them to Metro. Metro is also investigating the possibility of having the City Council pass an ordinance declaring that it is fraudulent to purchase or sell taxi scrip unless the scrip is used by the person in whose name the scrip was purchased.

Metro is also aware that, on occasion, independent cabs which do not have contracts with Metro acquire scrip from passengers. They then sell the scrip to a company which does have a contract to accept and redeem scrip. Even if the second company makes money on this arrangement, Metro does not consider this to be fraud, exactly. Rather, the profit is viewed as a "handling charge." That this is a common occurrence was verified by a chance encounter with an independent taxi driver while waiting for the airport bus.

"Do you ever take that taxi scrip?"

"Sure! I just sell it to _____."

"Does _____ make a profit?"

"No--he pays the same price. Then I just buy him a cup of coffee."

There is no other clear evidence of fraud in the program. Since Metro does not require proof of income, some elderly persons may have untruthfully declared themselves to be low-income. However, no one involved--Metro staff or taxi drivers--seems to believe the number of such people to be more than a handful.

3.6 SERVICE QUALITY AND COST

Service is available 24 hours a day. Most areas of King County are served. There is no restriction on destinations. Riders may group themselves to reduce each person's cost. (The charge for additional passengers varies from zero to \$.50 for basic, daytime service, as shown in Table 3-1.) According to the survey results, 36% of users do share a taxi at least some of the time, and about 18% share a taxi at least half of the time. The taxi companies, however, operate an exclusive ride service with metered fares. Once a person or group is picked up, no additional passengers can be picked up until the original person or group is dropped off. Under Seattle's recently revised taxi regulations, an operator can offer shared-ride service with fares based on a zone structure. However, no taxi company offered such service during the period studied.

In theory, scrip users should receive the same quality of service as other taxi patrons, since scrip users need not identify themselves as such until the end of a trip. The survey results appear consistent with this theory. Of 322 scrip users questioned, only 4% felt that they received poorer quality service paying with scrip than they would if they were to pay with cash. One percent felt they received better service, and 94% felt they received the same service. When those who perceived a difference in quality were asked what was better or worse about the service, most replied, "driver courtesy."

Since July 1979 taxi companies have been free to set their own fares. Thus, not all companies participating in the scrip program charge the same fare for the same trip. Table 3-1 shows the fares charged as of February 1981 by all participating companies. The three major companies, Farwest, Graytop, and Yellow, all have fares which are toward the low end of the spectrum.

TABLE 3-1. FARES OF PARTICIPATING TAXI COMPANIES
(February-April 1981)

<u>Company</u>	<u>Drop</u>	<u>Dist. Covered in Drop</u>	<u>Ea. Add'l Mile</u>	<u>Waiting Time</u>	<u>Extra Pass.</u>	<u>Example of 10-mi. fare</u>
Airline	\$ 1.00	1/5 Mi.	\$ 1.00	\$.20	\$.20	\$10.80
Blue Top	1.00	1/6	1.50	.30	.50	15.75
Night rate	2.00	1/6	1.50	.30	.50	16.75
Sr. citizen	1.00	1/5	1.25	.30	.50	13.25
Brown & White	1.00	1/6	1.20	.20	.20	12.80
Chief's	1.00	1/10	1.00	.20	.20	10.90
Night rate	1.00	1/13	1.30	.30	.40	13.90
City	1.00	1/5	1.00	.20	.20	10.80
Farwest	1.00	1/6	1.20	.20	.20	12.80
Wheelchair lift	7.50	(days)			2.50	19.30
Wheelchair lift	10.00	(nights)			2.50	21.80
Flash	2.00	1/15	1.50	.40	1.00	16.90
Night rate	3.00	1/15	1.50	.40	1.00	17.90
County	1.00	1/6	1.20	.30	.50	12.80
Gatling	1.40	1/7	1.40	.40	1.00	15.20
County	1.20	1/6	1.20	.40	1.00	13.00
Graytop	1.00	1/5	1.00	.20	.20	10.80
Wheelchair lift	5.00	1/5	1.00	.20	.20	14.80
Green & White	1.00	1/7	1.40	.30	.50	14.80
Harbor	1.00	1/5	1.25	.30	.50	13.25
Sr. citizen	1.00	1/5	1.00	.20	.50	10.80
Harold's	2.00	1/6	1.20	.30	1.00	13.80
Hawley's No. End	1.00	1/10	1.00	.20	.20	10.90
County	2.00	1/10	1.00	.20	.20	11.90
Hustlecab	1.20	1/12	1.20	.30	1.50	13.00
Lucky Lady	1.00	1/7	1.40	.40	.50	14.80
County	1.00	1/6	1.20	.30	.50	12.80
Sr. citizen	1.00	1/5	1.00	.30	.50	10.80
OK	1.00	1/6	1.20	.20	1.00	12.80
Paul's	1.00	1/5	1.00	.20	.20	10.80
Pioneer	1.00	1/5	1.00	.20	.20	10.80
Plaza	1.00	1/5	1.00	.20	0	10.80
Quick	1.00	1/6	1.20	.30	.50	12.80
Redmond Transicab	1.20	1/6	1.20	.24	1.20	13.00
Sno-King	1.00	1/7	1.40	.40	.50	14.80
Night rate	3.00	1/10	2.00	.40	.50	22.80
Sr. citizen	1.00	1/5	1.00	.20	.50	10.80
Solar	1.00	1/6	1.50	.30	.50	15.75
Night rate	2.00	1/6	1.50	.30	.50	16.75
Sr. citizen	1.00	1/5	1.25	.30	.50	13.25
West Coast	1.00	1/13	1.30	.20	.50	13.90
Night rate	1.40	1/14	1.40	.20	1.00	15.30
Sr. citizen	1.00	1/10	1.00	.20	.50	10.90
White	1.00	1/5	1.00	.20	.50	10.80
Yellow	1.00	1/5	1.00	.20	0	10.80

4. DEMAND

This chapter treats issues related to passenger use of the scrip system, including registration, trip rates, market penetration, travel characteristics, impact on users, user characteristics, scrip sales and purchase behavior, the relationship between taxi and transit use, and reasons for choosing particular taxi companies. An important data source used in this discussion is a telephone survey of STSP registrants conducted by Metro in April 1981. A total of 558 registrants were interviewed using the form which is reproduced in Appendix A. The survey included a random sample drawn from the registration files, which include individuals registered both for taxi scrip and the STSP van program. In the tabulations in the chapter, "registrants" refers to all respondents, while "users" refers to only those respondents who registered for and currently use the scrip program.

4.1 REGISTRATION

Registration has continued at a significant rate since the start of the STSP*, as shown in Figure 4-1.** In early 1980, after a year and a few months, it looked like registration was beginning to level off with about 4,500 people in the program. After the subsidy was increased from 40% to 60% in June 1980, registration picked up again, continuing at a brisk rate as far as statistics are available. The increased rate of registration may also have been supported by a marketing campaign conducted, beginning in July 1980 and continuing through early fall. The marketing campaign consisted of posters inside buses (see Figure 4-2), point-of-purchase displays, newspaper ads, and letters to social service agencies and group homes.

The removal of the income requirement for the disabled in April 1980 may have contributed to the increase in registration, although it did not have any immediate effect. The percentage of registrants declaring eligibility based on disability rose from 20% before April 1980, to 34% following April 1980. This might be taken to imply that 14% of post-April registration is due to the change in the eligibility requirements. However, based on the survey of registrants, it appears that the percentage of registrants

*There is no separate registration process for the scrip program, as opposed to the van program, also a part of the STSP. From the survey of registrants, it is known that about 21% have never used the scrip program.

**See Appendix B for further detail.

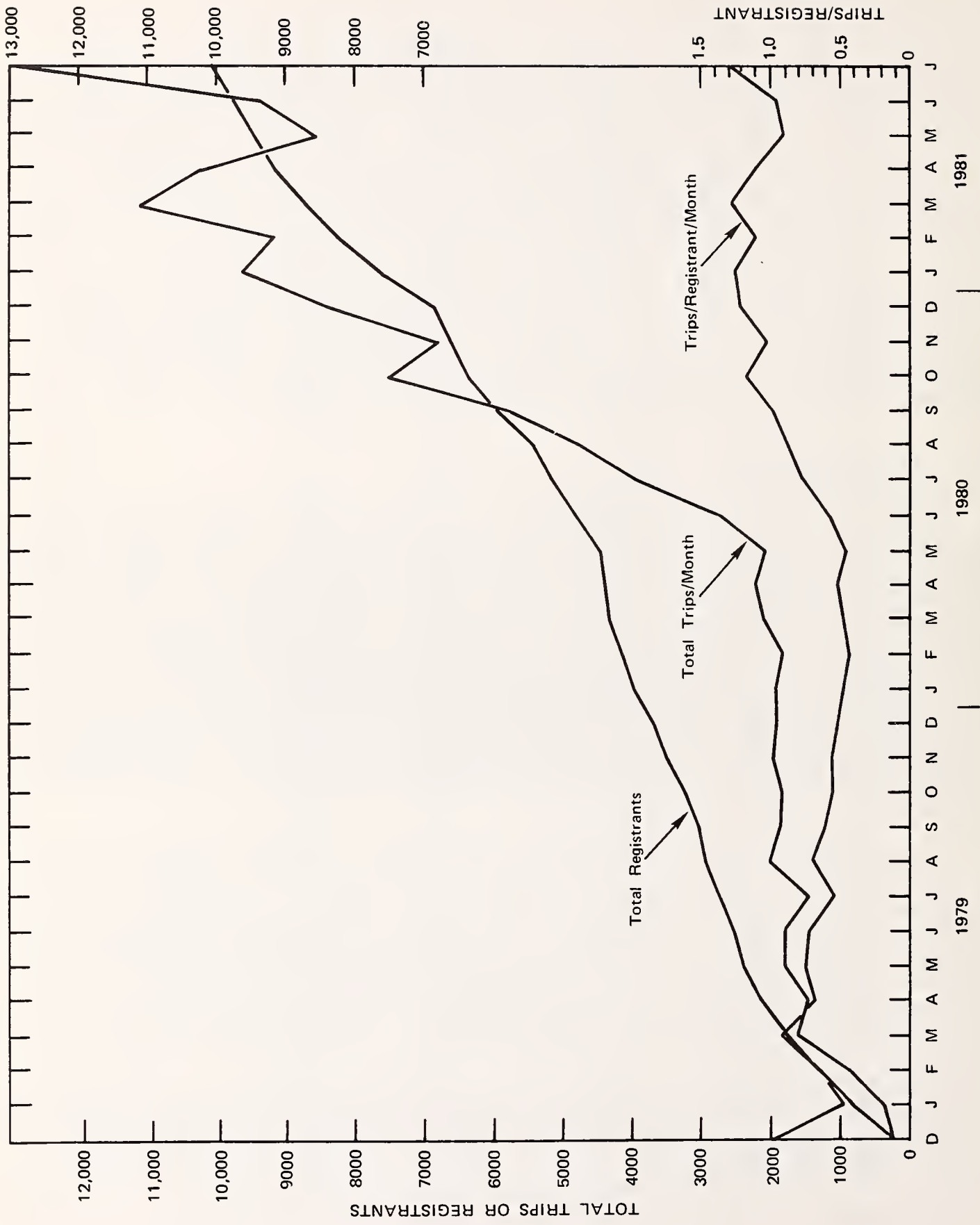
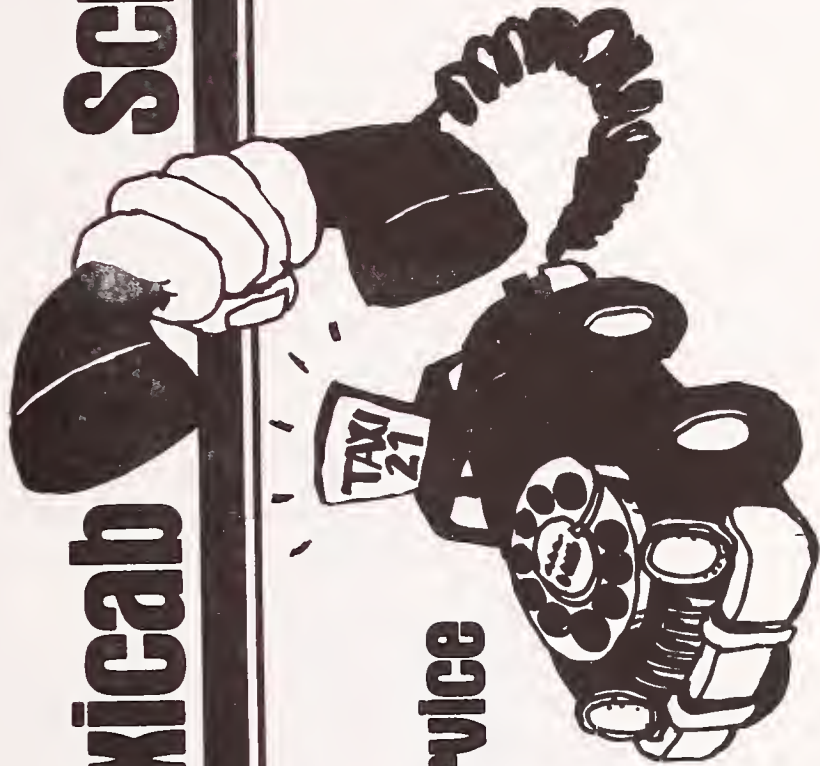


FIGURE 4-1. REGISTRATION AND TRIPS PER MONTH

Metro's Taxicab

Scrip Program

\$10
worth of taxicab service
for just
\$4



for disabled people
and low-income
senior citizens

If you think you may be eligible,
call for more details:

Mayor's Office for
Senior Citizens **625-4834**

Metro's Customer
Assistance Office **447-4824**



FIGURE 4-2. BUS POSTER

with incomes over the cutoff points may have actually decreased slightly after April 1980 (from 11% to 9% based on 327 and 176 respondents, respectively).*

These figures imply that, even with an income test based only on self-declaration, violation rates are quite low, and may even represent mostly unintentional violations, given that the data are based on volunteered survey responses. The lack of change when the limit was removed is consistent with findings from other user-side subsidy evaluations, that registration is generally a self-selecting process in which most "non-needy" individuals eliminate themselves.

In the year following the June 1980 subsidy increase, average monthly registration increased 140% over the rate for the preceding year (416 per month, compared to 173 per month). Regarding the importance of increasing the subsidy, in the survey of registrants, only 9% of those who joined the program after June 1980 said they did so because the price of scrip booklets was lowered (based on 131 respondents). This result suggests that the subsidy increase accounts for only a 13% increase in the registration rate (9% of 140% is 13%). At most a 14% increase can be attributed to the change in eligibility requirements. Combining these two effects leaves a 113% increase unexplained. Some of the increase could be due to several vehicles having been added to the van program, but only 10% of registrants live in areas served by that program. The remainder may therefore be a result of the marketing campaign.

The spurt of registration in 1981 is not completely understood. However, much of it is due to registration drives conducted by the two multiservice centers which operate vans for STSP. At least some of the people registered by the multiservice centers also use taxi scrip.

Figure 4-3 shows the percentage of registrants with addresses in various areas (defined by zip codes), as compiled by Metro staff at the end of 1980. The City of Seattle includes all of areas 2, 3, and 4 on the map and about half of area 1. The figures shown indicate therefore that roughly 70% of registrants live in the city of Seattle. By comparison, in planning for the STSP in 1978, staff estimated that 72% of the eligible population lived in Seattle. The map also shows that the concentration of registrants is greatest in central Seattle (area 3), presumably mirroring a similar concentration of eligible population.

*Since these percentages have 95% confidence ranges of $\pm 3\%$ and $\pm 4\%$, respectively, the difference is not statistically significant.

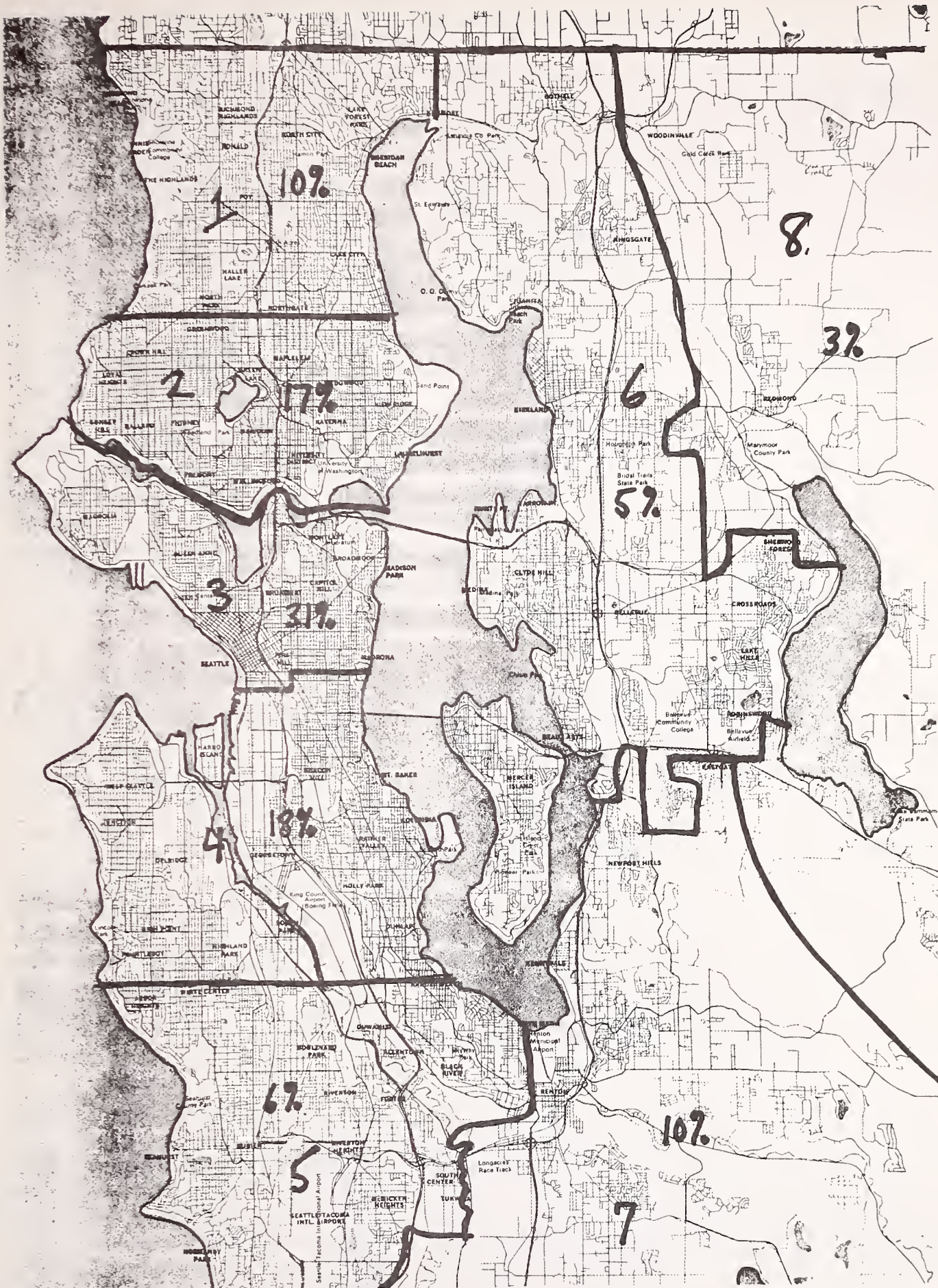


FIGURE 4-3. REGISTRATION BY AREA

4.2 USE RATES

As shown in Figure 4-1, trip making on the scrip program averaged well under one one-way trip per month per registrant until after the subsidy increase, after which it increased to a little over one per month. Increased use per registrant, combined with the great increase in registration, produced an explosion in total trips provided. From approximately 2,000 per month before the subsidy increase, total use had risen to over 10,000 per month in early 1981. It seems unreasonable to attribute such growth entirely to a 33% fare decrease. Metro's marketing efforts must have played an important role.

In the survey of scrip registrants, only 62% described themselves as current users of the scrip program, or said they had used it in the last month. Confirmation that this is a reasonable figure comes from an analysis of computerized sales transaction records, which show that 68% of registrants purchased scrip at least once in 1980. Adjusting the trip rates shown in Figure 4-1 for users only (using the 62% figure) gives a trip rate of 1.82 trips per month per user in the first seven months of 1981.

One of the objectives of the evaluation was to investigate the effect of having no limitation on the amount of scrip a registrant can buy and use, or on the number of trips a registrant can make using scrip. One effect turned out to be that a few individuals appear to have made a business of buying scrip and selling it to taxi drivers at a profit (see Section 3.5). In order to halt this practice, Metro has taken legal action and instituted a limit on scrip purchases. The limit of 200 books (worth \$2,000) per year, instituted in May 1981, is still high enough to permit a person to take 31 trips per month, worth \$167, at the average fare in early 1981 of \$5.41 per trip. Moreover, since the limit is an annual one, users still have the flexibility to make very heavy use of taxi scrip in particular months. By comparison, the least restrictive Service and Methods Demonstration Program user-side subsidy project, in Montgomery, Alabama, employed a \$30 monthly limit, equivalent to 23 trips per month.

In order to determine the effect of having no limit on scrip use, Metro asked the taxi companies to maintain logs of scrip trips, including users' STSP ID numbers and amounts of scrip used, for the months of April and May 1981. The companies' contracts with Metro have always required such logs to be kept; however, only one of the three major companies (Yellow), accounting for 13% of the scrip used, had actually kept the logs. Although the 200 book per year limit came into effect in May, the second month of the log-keeping experiment, it probably did not have time to affect travel behavior significantly.

Unfortunately, only two of the major cab companies and a few small companies turned in logs. The trip records on the logs turned in represented about two-thirds of trips actually taken. In addition many ID numbers were illegible or may have been transcribed incorrectly, either by the taxi drivers, the company record keepers, or the keypunchers. The result is that individuals' trip making frequency is understated. For example, many people who took exactly two one-way trips (a round trip) appear to have only one of the two trips recorded.*

Despite these limitations, the results are interesting for the information they provide on very frequent trip making and high scrip use levels. As shown in Table 4-1, the logs showed fewer than one percent of users with trip making or scrip use levels over the monthly average corresponding to the purchase limits instituted in May (\$167 or 31 trips per month). Of 5,679 estimated users,** 0.2% had over 31 trips in the April logs, and 0.5% showed scrip use over \$167 in the April logs. Even allowing for major underestimations in use rates, it appears that fewer than one percent used the system at a monthly rate over the new limit. On the other hand, the results show that a handful of individuals use the system for frequent and, in some cases, lengthy trips.

TABLE 4-1. PERCENT OF USERS MAKING FREQUENT USE OF SCRIP

<u>No. of Trips</u>	<u>% of Users (based on 5,679 users)</u>	
	<u>April</u>	<u>May</u>
20-29	0.3%	0.2%
30-39	0.1	--
40+	0.04	0.04
<u>Amount of Scrip Used</u>		
\$100-199	0.9%	0.5%
\$200-299	0.2	0.1
\$300+	0.1	0.1

*The statement is based on the observation that the data include exactly one one-way trip for 61% of users during the two months and exactly two one-way trips for 13% of users during the two months. It is true that 45% of users ride the taxi for half of a round trip at least some of the time (see Section 4.4). Nevertheless, it seems that one round trip (two one-way trips) should be the most frequently occurring case.

**Based on the April registration total of 9,159 and the 62% of surveyed registrants describing themselves as current users.

Figure 4-4 shows a more complete picture of the distributions of trip making frequency based on the April and May 1981 taxi logs. For the reasons already noted, caution is advised in interpreting these data. Nevertheless, the essential point is clear: the great majority of users make very infrequent use of the program. Note that, although a person makes no trips in one month, he or she may still be a user of the program. For instance, although the logs show over half of users making no trips in each month separately, only 29% of users made no trips in the two months combined.

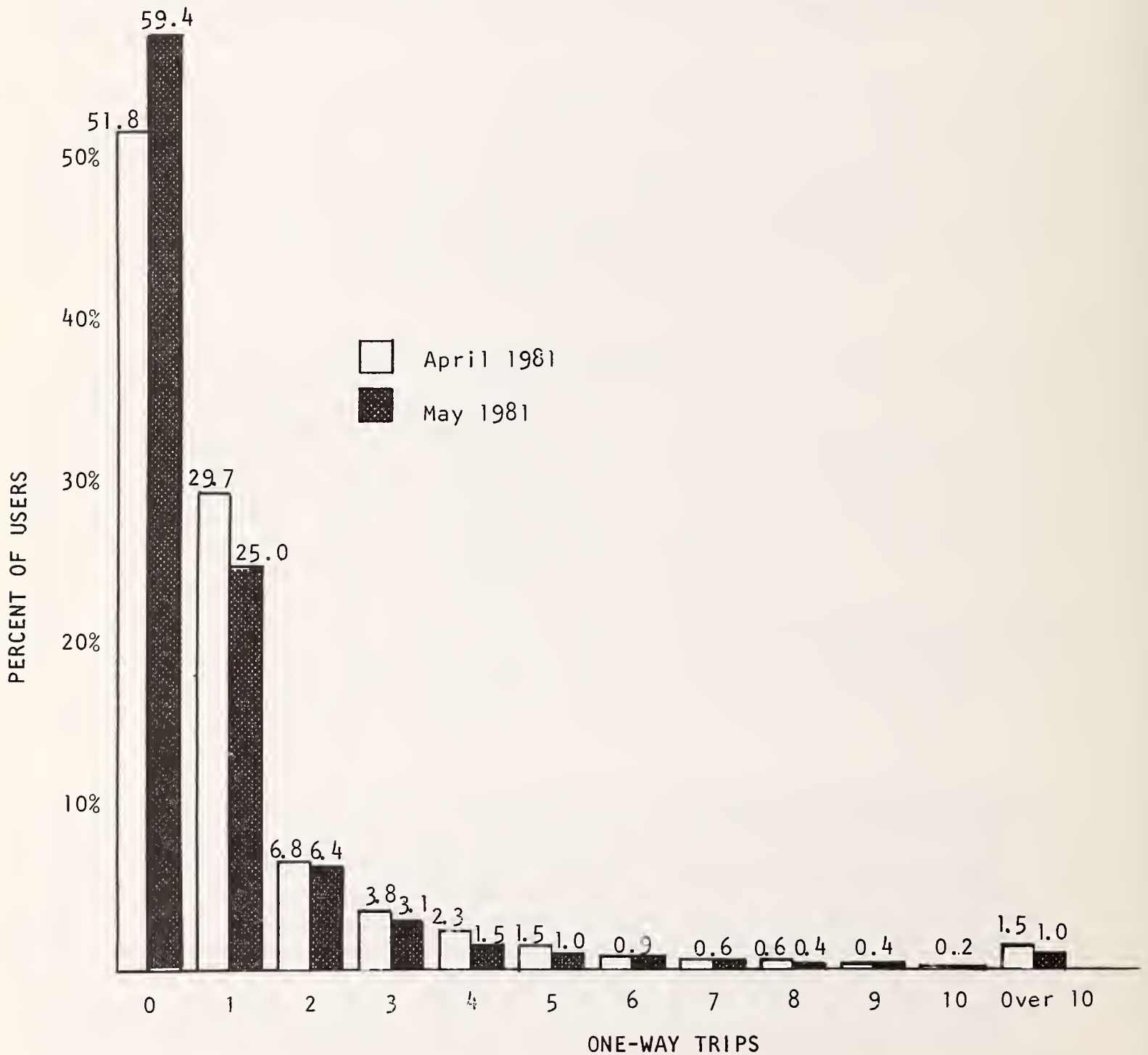


FIGURE 4-4. DISTRIBUTION OF TRIP MAKING FREQUENCIES.

4.3 MARKET PENETRATION

In planning for the scrip program, Metro staff estimated that 78,000 persons in Metro's service area would meet the program's eligibility requirements (income below 70% of state median and elderly or handicapped) in 1978. The 10,000 STSP registrants as of July 1981 would then represent 13% of the eligible population. The 62% of registrants who were scrip program users at the time of the scrip user survey would be 8% of the eligible population. The registration rates are lower than those for other elderly and handicapped transportation services studied by SMD, for example Kinston (26%), Lawrence (38%), Danville (45%), and Kansas City (14%).*

The most likely reason for the low market penetration rate is the high level of transit service available in Seattle compared to the cities just listed. It might also indicate a lack of effective promotion. The very long time which it has taken registration to reach its present level would tend to support this hypothesis. One other possible contributing factor might be a reluctance to admit to low income, or uncertainty about eligibility under the income requirement.

4.4 TRAVEL CHARACTERISTICS

As shown in Table 4-2, more scrip users use the program for medical trips (including trips to nutrition programs) than for any other purpose. Most of trips which users claimed they would not make without the program are also medical trips. Shopping and personal business trips are also major uses. It might seem strange that medical trips would be the one users would forego. In fact, the percentage willing not to make medical trips is high only because the total number of users making medical trips is so high.

TABLE 4-2. TRIP PURPOSES OF SCRIP USERS.

<u>Purpose</u>	<u>% of users making trips for each purpose (n=338)</u>	<u>% of users who would not make trips for each purpose without scrip program (n=323)</u>
Work or school	3%	2%
Shopping	28	15
Medical related	} 59	30
Nutrition programs		2
Personal business	16	11
Visit friends or relatives	9	7
Entertainment or recreation	10	6
Other	10	2

*Bruce Spear, et al., Service and Methods Demonstration Program Report, Report No. UMTA-MA-06-0049-81-12, December 1981, p. 218.

Operators do not group trips in Seattle; however, 36% of scrip users do share their taxi trips with another person at least some of the time, and 18% of scrip users share their taxi at least half of the time.

The taxi is often used for just one leg of a round trip. Of 250 respondents who used a taxi in the month preceding the scrip registrant survey, 45% use the taxi in combination with other modes at least some of the time. More use the taxi returning from a trip begun by another mode (40%) than the other way around (28%). As shown in Table 4-3, the most common mode used in combination with the taxi is the bus. This is not surprising, since more scrip users travel by bus than any other mode (see Section 4.6), and it is well known that bus riders are occasionally unable to use the bus for both parts of a trip due to reasons such as lack of service, fear of waiting in the dark, and difficulty carrying packages.

TABLE 4-3. MODES USED IN COMBINATION WITH THE TAXI.

<u>Combination</u>	% of Taxi Users in Last Month Who Used Each Combination	
	<u>Other mode</u>	<u>Other mode</u>
	<u>going</u>	<u>coming</u>
	(n=250)	(n=250)
Taxi + drive	1%	1%
Taxi + auto passenger	14	12
Taxi + bus	30	21
Taxi + walk	5	--

According to the taxi users' estimates of the fare paid for "the most frequent trip you make by taxi," the average fare is \$5.22, and the median fare \$4.74. These fares correspond to trips of about four miles in length on the three major companies. Figure 4-5 shows the distribution of most frequent fares as reported by the scrip registrant survey respondents.

As shown in Figure 4-6, the average fare paid increased steadily from the start of the program until late 1980. These average fare figures were estimated by Metro staff from the scrip tallies turned in by the taxi companies.* No explanation is available for the steady increase shown. A sharp increase might have been expected following the subsidy increase in June 1980, but none is evident. Many companies raised fares following the rate reforms in July 1979. However, none of the major companies raised their fares from then until early 1981.

*The tallies do not always identify individual trips. The estimate is made by identifying those reported amounts which appear to represent individual trips. Separate estimates are made for several classes of company, and then combined based on total amounts of scrip turned in by each company. It is conceivable that some part of the estimation process has produced a spurious trend; however, no mechanism for such an upward-trending bias is apparent.

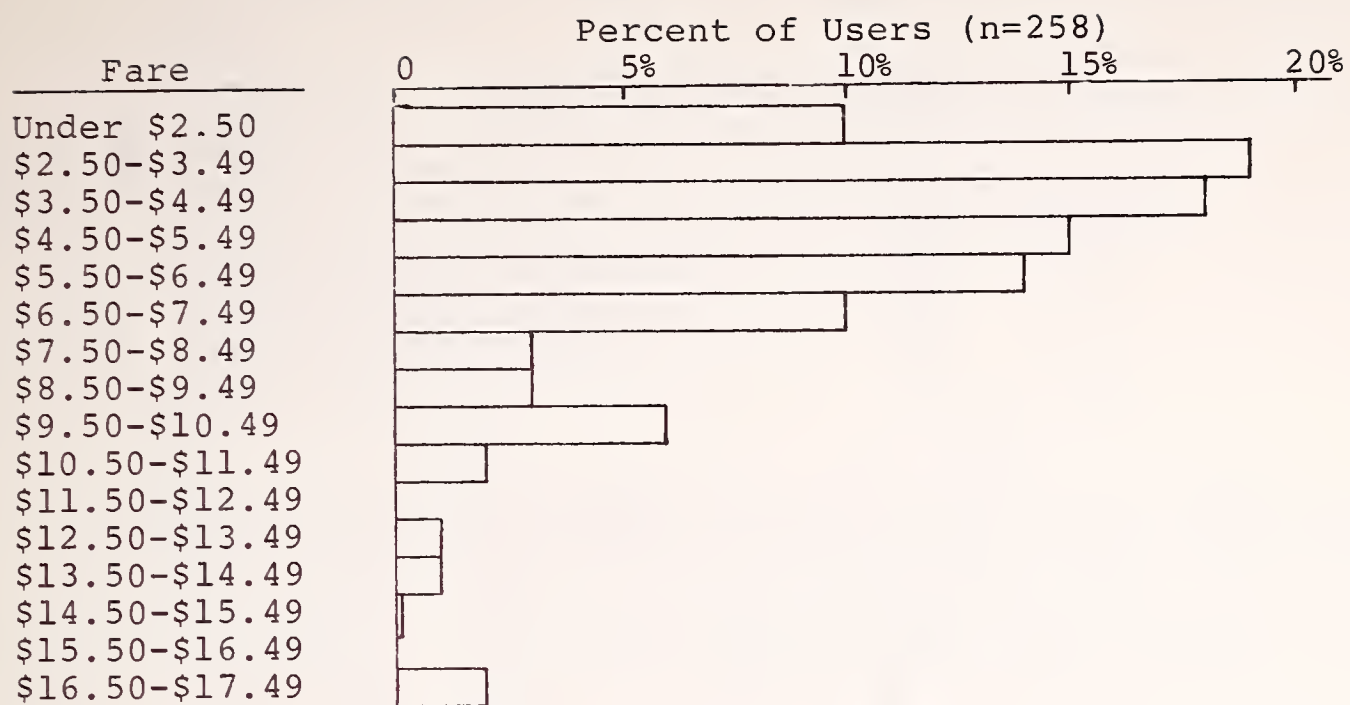


FIGURE 4-5. MOST FREQUENT TAXI FARE PAID

The actual cash outlay per trip is only 40% of the full fares just quoted if the whole fare is paid using scrip.* Users are free to combine cash with scrip any way they choose (except for tips, which are supposed to be paid in cash), but few do so. Of 325 users questioned, 21% have paid part of their fare in cash at least once. Of those who have paid cash, 57% said they do so "almost never" and another 34% said they do so "less than half the time." Only 6% pay cash half the time or more. The reasons given for paying cash include: ran out of scrip (16% of all users); taxi wouldn't accept scrip (2%); lost or forgot scrip or identification, and "convenience" (1%, or two users, each).

4.5 IMPACT ON USERS

Scrip users were questioned about whether they travel more or less as a result of the scrip program, why they have shifted trips from other modes to taxicab and the effect of various price changes. As shown in Table 4-4, a slight majority of users feel that, as a result of the scrip program, they travel by taxi more often than they did before they joined the scrip program. Of those who travel by taxi more often, 68% reported that there are trips they make now which they would not make were it not for the scrip program. The particular types of trips which users feel they make as a result of the scrip program were reported on in Section 4.4.

*50% after September 1981.

TABLE 4-4. CHANGES IN TAXI USE DUE TO SCRIP

<u>Effect of Program</u>	<u>% of Users</u> (n=323)
Travel more often	52%
Travel about the same	37
Travel less often	9
Don't know	3

Users who felt they make more taxi trips as a result of the scrip program were also asked whether any of their taxi trips used to be made by other modes; 56% said yes. More users had shifted trips from the bus (18%) than from any other mode. Former bus users cited health, age, and convenience as their reasons for changing to the taxi. Table 4-5 summarizes the results regarding trips shifted from other modes.

TABLE 4-5. USERS WHO HAVE SWITCHED FROM OTHER MODE

<u>Reason</u>	<u>% of Those Who Switched From Each Mode Giving Particular Reasons for Switching</u>				
	<u>Walk</u> (n=9)	<u>Drive</u> (n=22)	<u>Rides*</u> (n=28)	<u>Bus</u> (n=59)	<u>Van**</u> (n=3)
Health/age	67%	50%	11%	49%	--
Convenience	22	9	21	20	67%
Safety	11	5	4	8	--
No longer available	--	23	50	2	33
Lack of service	--	--	--	3	--
Packages	--	--	--	3	--
Scrip	--	--	4	7	--
No reason	--	14	11	7	--
<u>% of users who have switched from each mode:</u>	3%	7%	9%	18%	1%

*Rides from friends or relatives.

**Social agency van or taxi van.

Seventeen percent of users reported that because of the scrip program, they travel to different places than they used to. However, on being asked why they didn't go to those places before, 3% gave a reason not related to the scrip program, namely that they didn't need to go there before. Reasons relating to the program included that it was too inconvenient before (6%), it was too expensive without scrip (3%) and that available modes other than the taxi didn't go there (2%).

4.6 USER CHARACTERISTICS

This section presents results about taxi scrip users based on the survey of 548 STSP registrants conducted by Metro in late April 1981. Of the 548 registrants interviewed, only 338 or 62% actually considered themselves users of scrip or had used it within the previous month. The remaining 38% either registered to use the STSP van program or just never got around to using scrip (24% have never used it), use it very infrequently (5%), or stopped using it for various reasons, mainly because they no longer needed it (5%).

Tables 4-6 through 4-12 report on the characteristics of the 338 users. The results for all registrants do not differ significantly from those presented for users only. The users are quite elderly, with a median age of 74 years. Eighty-three percent are age 65 or older and 27% are age 80 or older. Figure 4-7 shows a complete age profile of the users. The users are mostly women (84%). Only 7% of users are black or of other ethnic or racial minorities. The registration guidelines require most registrants to be low income, which they are as shown in Table 4-6.* Eighty-four percent consider themselves retired (see Table 4-7), and 74% live alone (see Table 4-8). The users definitely include a greater percentage of females, very elderly, and persons living alone than the elderly population in general. Unfortunately, no comparison data are available for the eligible population.

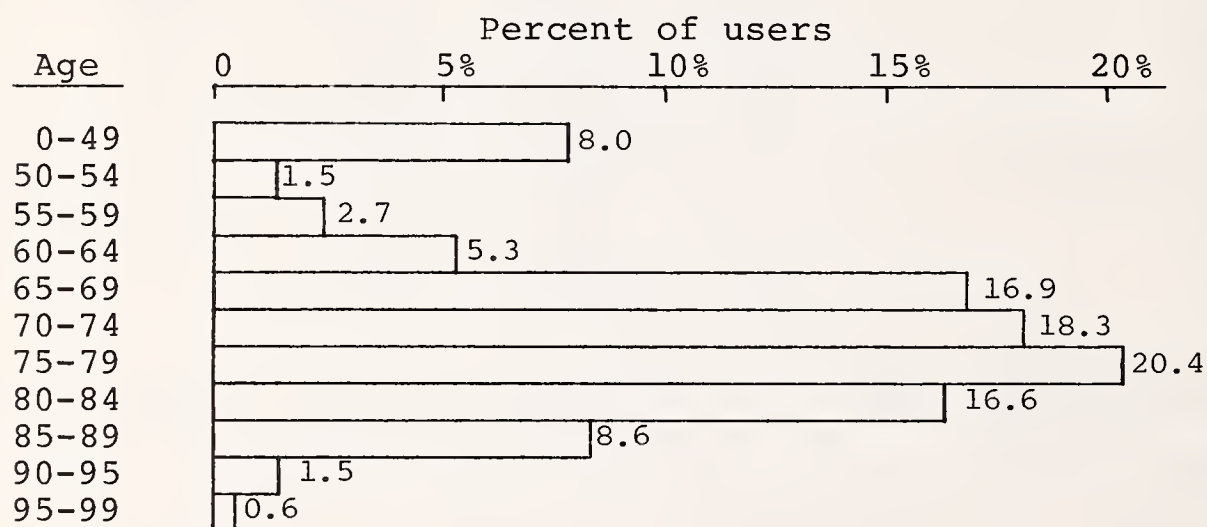


FIGURE 4-7. AGE DISTRIBUTION OF USERS

*Currently, and for most of the program's duration, all registrants have been required to be low income. The survey was conducted during the April 1980 to September 1981 period when the income requirement was removed for the disabled. At no time has the income limit been enforced by other than an honor system.

TABLE 4-6. INCOME OF USERS

<u>Annual Income</u>	<u>% of Users</u> (n=306)
Under \$5000	51%
\$5000-\$7500	35
\$7500-\$10,000	9
\$10,000-\$20,000	3
Over \$20,000	2

TABLE 4-7. EMPLOYMENT STATUS OF USERS

<u>Employment Status</u>	<u>% of Users</u> (n=326)
Employed full time	2%
Employed part time	2
Student	2
Retired	84
Homemaker	4
Unemployed	4
Other	1

TABLE 4-8. HOUSEHOLD SIZE

<u>Persons in Household</u>	<u>% of Users</u> (n=335)
1	74%
2	21
3+	5

A minority of users use mechanical aids or have serious disabilities, as shown in Tables 4-9 and 4-10.

TABLE 4-9. AIDS USED BY SCRIP USERS

<u>Aids</u>	<u>% of Users</u> <u>(n=338)</u>
Wheelchair	6%
Walker	3
Crutches	3
Walking cane	--
Blind cane	4
Seeing-eye dog	1
Artificial limbs	1
Braces	1
Escort	3

TABLE 4-10. DISABILITIES OF SCRIP USERS

<u>Personal Description</u> <u>of Disabilities</u>	<u>% of Users</u> <u>(n=338)</u>
None	51%
Arthritis	5
Heart	5
Stroke	2
Blind	6
Age/fragility	3
Back injuries	3
Respiratory	--
Feet/legs	9
Wheelchair	3
Poor eyesight	1
Paralyzed	1
Climbing stairs	2
Other lower body	3
Other	5

Turning to transportation-related characteristics, 81% of users live in households with no car. Eighty-four percent do not have a driver's license and 89% either have no license or no vehicle available to drive. The transportation modes used by the greatest percentage of scrip users are bus (46%) and taxi (35%). Table 4-11 provides more details. Not only did more scrip users ride the bus than the taxi in the week before the survey, but those who used the bus rode it more times than those who used the taxi rode that mode. The taxi is shown to be a slightly more important mode, on the average, than rides with friends and relatives. Of all users interviewed, 87% reported that they live within a five-minute walk from a Metro bus stop (the same statistic for non-users registered for STSP is almost identical--86%).

TABLE 4-11. TRAVEL MODES OF SCRIP USERS

Mode	% of Users Who Used Each in Last Week (n=338)	One-Way Trips Per Week By Those Using Mode	
		mean	median
Walk	18%	5.7	4.3
Drive	8	4.9	3.8
Ride	22	3.2	2.2
Bus	46	5.9	4.2
Agency van	3	2.0	2.0
Taxi	35	3.4	2.3
Other	2	2.0	1.3

TABLE 4-12. TRIP RATES BY MODE

Mode	One-way Trips Per Week	
	0 Vehicles (n=411)	1 or More Vehicles (n=109)
Walk	1.3	2.2
Drive	0.2	2.1
Passenger	0.6	1.3
Bus	3.3	2.1
Taxi	0.8	0.7

4.7 SCRIP SALES AND USE

Scrip sales and reimbursement (which is also an indicator of scrip use) have been rising since the start of the program. Some trends in scrip sales and use per registrant are graphed in Figure 4-8.* Initially, registrants purchased more scrip than they used. Demand dropped quickly to levels closely matched to actual use; both then gradually declined, on a per-registrant basis, mirroring a similar drop in trip rates per registrant (see Figure 4-1), up until the subsidy increase in June 1980. Total scrip sales and use were roughly constant during the same period, however, due to the continuously increasing number of registrants.

Throughout the period up to the subsidy increase, the amount of scrip outstanding (i.e., purchased but not used) per registrant declined. This decline probably indicates that early registrants were gradually using up their overstock of scrip, while a disproportionate share of sales was going to new registrants. At the time of the subsidy increase, the amount of scrip outstanding was equal to 1.7 months' worth, given the rate of use at that time.

As demand grew, growth in purchases anticipated growth in use, resulting in increasing amounts of scrip outstanding per registrant. The amounts of scrip outstanding were actually dropping compared to use rates, however. The peak level of scrip outstanding per registrant, reached in October 1980, represented about 1.1 months worth of scrip at that time. As use per registrant leveled off in 1981, the amount of scrip outstanding per registrant resumed the downward trend interrupted by the subsidy increase in May 1980.

4.8 SCRIP PURCHASE BEHAVIOR

Scrip can be purchased at the Metro Customer Assistance Office, the Mayor's Office for Senior Citizens (both in downtown Seattle), by mail, and (since mid-1980) at 28 Albertson's grocery stores, several "little City Halls," and a few social service agencies. As shown in Table 4-13, most users report buying their scrip at the two downtown locations. This might seem inconvenient compared to purchase by mail; however, most users buy scrip infrequently. Also Metro's mail order system requires users to supply their own envelopes and postage, and to pay by check or money order, any of which may seem inconvenient to some users.

Actual sales records for the first eight months of 1981 are approximately consistent with the survey results, except that Albertson's has increased its share to 17% and the "other" outlets have lost in percentage terms although not in total sales.

*Further detail is provided in Appendix B. Figures for early 1981 in Appendix B diverge slightly from those in Figure 4-8, due to receipt of corrected data from Metro at the last minute.

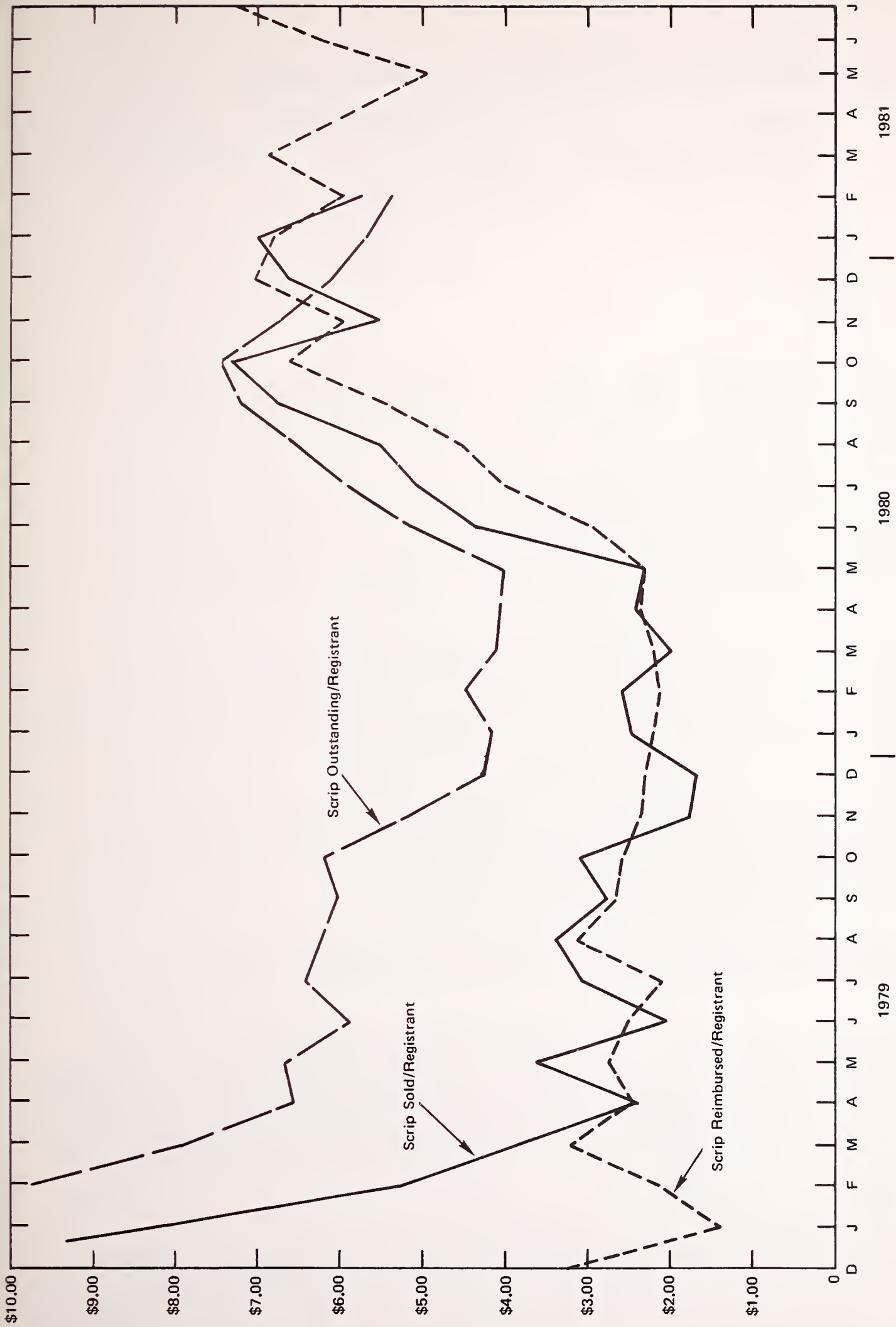


FIGURE 4-8. TREND OF SCRIP SALES AND USE

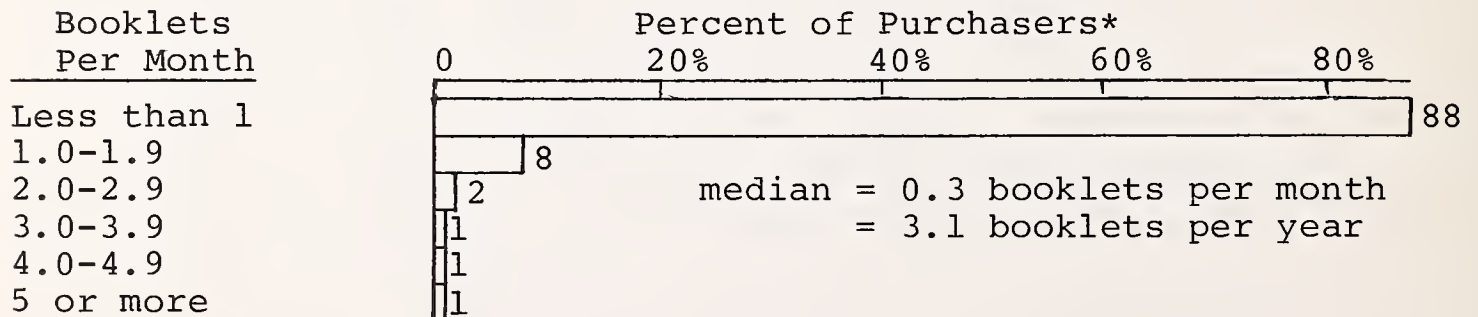
TABLE 4-13. WHERE SCRIP IS USUALLY BOUGHT

<u>Location</u>	<u>% of Users (n=324)</u>
Customer Assistance Office	32%
Mayor's Office	25
Mail	25
Albertson's	6
Other	12

The survey question on method and location of purchase was tabulated by income, age, vehicle availability and possession of a driver's license. None of these revealed any significant patterns. Questions on the number of booklets bought per typical month and per purchase were also analyzed. The analysis showed that mail purchasers report buying about 40% to 50% more scrip (per month and per purchase) than those purchasing at the Customer Assistance Office or the Mayor's Office. However, a comparison with actual sales records indicates that the respondents greatly overreported their scrip purchases. Therefore, no numerical findings on scrip purchases from the survey are presented here.

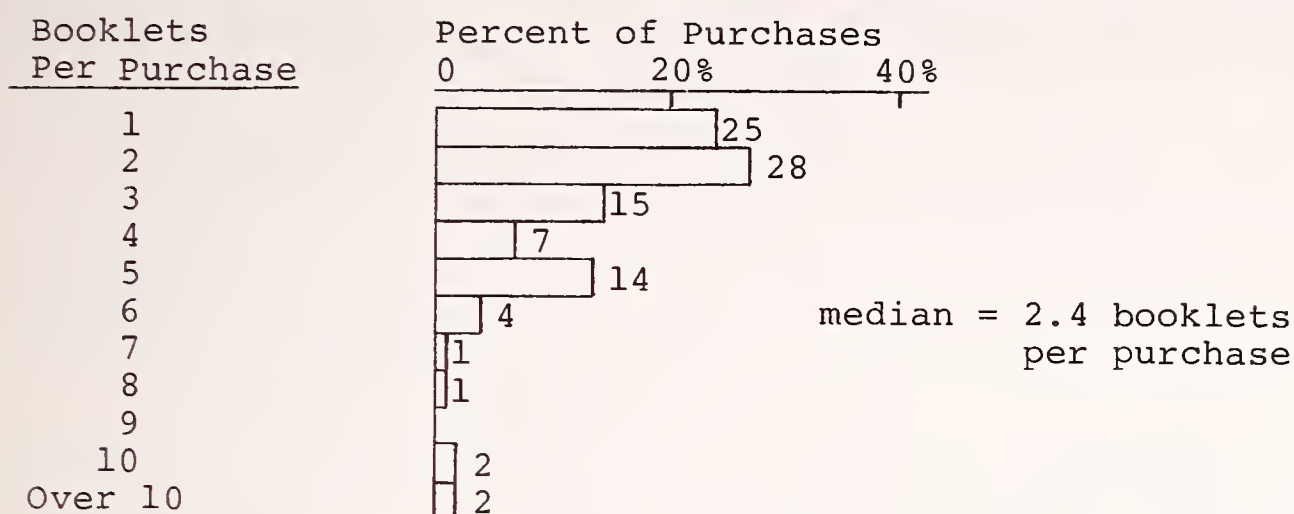
The computerized records of scrip sales transactions were used to investigate how many booklets of scrip registrants buy, and how many booklets they buy at one time. Each outlet turns in records of sales transactions, showing an STSP ID number, booklet serial numbers, the date, and the number of booklets bought in each transaction. These are keypunched for computer entry. Metro supplied two reports for all transactions in 1980, one showing each transaction in order of the purchaser's ID number, and one showing the ID numbers of all registrants who bought a particular total number of the booklets. These have been used to prepare the frequency distributions in Figures 4-9 and 4-10.

FIGURE 4-9. DISTRIBUTION OF BOOKLETS BOUGHT PER MONTH



*Purchasers are those who bought at least one booklet in 1980.

FIGURE 4-10. DISTRIBUTION OF BOOKLETS BOUGHT PER PURCHASE



Of 6864 people who had registered by the end of 1980, 4653 or 68% purchased at least one scrip booklet in 1980. Since 68% is close to the percentage of registrants who are users as indicated by the scrip registrant survey (62%), there may be a fair correspondence between purchasers and users. Most purchasers bought very few booklets. The median of purchases in 1980 was 3.1 booklets. These results understate purchase frequency, because only 3689, or 54%, of the registrants in the sample were registered for the program for the entire year. Nevertheless it is clear that most users buy less than one \$10 booklet per month. These results are consistent with the findings concerning trip rates and reimbursements reported in Section 4.2.

A few users do buy booklets in considerable quantity. A total of 55 registrants bought five or more booklets per month (60 per year) in 1980. Only three individuals exceeded the figure of 200 booklets per year which was established as a limit in early 1981. In 1981, however, prior to the establishment of the purchase limit, the incidence of frequent purchases appears to have increased markedly. Partial records supplied by Metro for the first five months of 1981 show 11 individuals having already bought 100 or more booklets.

The typical scrip purchase is of more than one booklet. As shown in Figure 4-10, most purchases are of two or more booklets. These results, and similar ones from the scrip registrant survey, as well as the analysis of purchase and use in Section 4.7, imply that scrip users generally buy enough to last several months with each purchase.

4.9 SCRIP REGISTRANTS AND TRANSIT USE

One of the reasons for conducting a case study of the Seattle Metro scrip program was that Metro also offers lift-equipped bus service. This service is one of the most successful lift bus services in the country. At the time of the scrip registrant survey, accessible service was available on 46 routes served by 259 lift-equipped buses. Therefore, Seattle provides an opportunity to compare who uses the two types of service and why. More generally, Seattle offers a higher level of bus service than most other cities where user-side subsidies have been studied before. Therefore, Seattle also provides an opportunity to observe use of taxi and bus service by the non-severely handicapped and elderly.

As reported in Section 4.6, the bus is the most commonly used transportation mode for all scrip users. For all registrants, 48% used the bus in the week preceding the survey, compared to the 22% who used a taxi. The median number of bus trips by bus users was 4.2, compared to 2.1 taxi trips by taxi users. There is no appreciable difference between scrip users and other registrants.

Among all registrants interviewed, the combinations of bus and taxi use break down as shown in Table 4-14. The figures show that use of two modes is nearly independent in the statistical sense that taxi users are as likely to use the bus as non-taxi users and vice versa. About 49% of non-taxi users used the bus, compared to 43% of those who used the taxi in the week before the survey. About 25% of non-bus users used the taxi, compared to 21% of those who used the bus.

TABLE 4-14. COMBINATIONS OF BUS AND TAXI USE

<u>Mode Used Last Week</u>	<u>% of Registrants (n=548)</u>
Bus only	38%
Taxi only	13
Bus and taxi	10
Neither	39

These figures may imply that the taxi, which is considerably more expensive than the bus even with scrip, is used relatively infrequently and for trips for which no other practical mode is available. Some evidence in this direction is provided by the trip purpose figures presented in Section 4.4: more users (59%) use the taxi for medical trips than for any other purpose. No data were collected on bus trip purposes.

Of all 548 scrip registrants surveyed, 235 or 43% reported some medical condition or disability that makes it difficult to use buses. Table 4-15 shows the percentages who have difficulty with specific bus-related functions. The 164, or 30%, who reported

TABLE 4-15. BUS FUNCTIONAL DIFFICULTIES

<u>Function</u>	<u>% of Registrants Finding it Difficult (n=548)</u>
Walking more than a block	24%
Waiting outside for a bus	19
Getting on or off a regular bus	30
Sitting down or getting up	18
Standing in a moving bus	37
Holding onto coins, tickets, or handles	10
Reading signs	11
Hearing announcements	8

that they have difficulty getting on or off a regular bus include 94% of the 34 wheelchair users, 81% of the 21 walker users, 69% of the 86 cane users and 60% of the ten crutch users interviewed. Those with some disability or condition which makes it difficult for them to use buses (44% of registrants) are more likely to use the taxi and less likely to use the bus than those with no such disability or condition (see Table 4-16). Even for those who do have such a disability or condition, a slightly higher percentage used the bus than the taxi.

TABLE 4-16. BUS AND TAXI USE BY DISABILITY

	<u>Disability or condition making it difficult to use buses?</u>	
	<u>Yes (n=235)</u>	<u>No (n=296)</u>
Used Bus in Last Week?	35%	58%
Used Taxi in Last Week?	31%	15%

Turning to the issue of scrip registrants and lift bus service, the registrants who have difficulty getting on or off a regular bus were asked about knowledge, availability, and use of lift buses. Seventy percent were aware of the lift buses. Of those who were aware of the service, only 45% said that lift bus service was available for any of the trips they usually make. The remainder either said the service was not available (22%) or did not know if it was available (33%). Of

the 61 respondents who said service was available, only 30% (3% of respondents) had ever used the lift on a Metro bus. The 70% who had never used the lift service were asked why they had not used it. The responses, shown in Table 4-17, indicate that a majority are not handicapped enough to need it, or too handicapped to be able to use it. Eight respondents thought it was only for wheelchairs. One claimed that the drivers would not let you use it unless you were in a wheelchair.

TABLE 4-17. REASONS FOR NOT USING LIFTS

<u>Reason</u>	<u>% of those with lift service available (n=61)</u>
Don't need to	34%
Too difficult	20
Thought it was only for wheelchairs	16
Afraid	8
Embarrassed	8
Other	10

Some further insights may be gained by comparing the characteristics of scrip registrants with those of users of the lift-equipped bus. Knowledge of lift user characteristics is based on a survey of 73 lift users conducted by Metro in the fall of 1980. That survey was carried out in connection with an SMD-sponsored evaluation of the lift-equipped bus service, and is described in the report of that evaluation (see note, page 6).

Whereas scrip registrants are quite elderly, with 84% being age 65 or older, only 8% of lift users are age 65 or older. Almost all the lift users (92%) use a wheelchair, while only 6% of scrip registrants do. The comparison of the percent of scrip users and lift users making trips for various purposes, shown in Table 4-18, demonstrates very different travel patterns. The taxi is used less for every kind of trip except medical trips, and much less for work, school, recreation, and visiting trips.

Many of the scrip registrants are non-disabled elderly. Those registrants with disabilities tend to be unable to use lift buses, or not travel enough for the cost difference to outweigh the convenience of the taxi. Lift users on the other hand, although they are in wheelchairs, appear to be fairly young and mobile for the most part. Many of them do take advantage of the taxi scrip program--45% of lift users are registered for taxi scrip and 48% use the taxi for some trips. Another major difference between scrip users and lift users is the size of the groups involved. At most a few hundred people use the lift buses, while over 6,000 use taxi scrip.

TABLE 4-18. TRIP PURPOSES OF SCRIP USERS AND LIFT BUS USERS

Purpose	% of Respondents Making Trips for Each Purpose	
	Taxi Trips by Scrip Registrants (n=338)	Lift Bus Trips by Lift Users (n=72)
Work	} 3%*	27%
School		11
Shopping	28	58
Medical	59	19
Personal business	16	38
Recreation	9	} 38**
Visits	10	
Other	10	

*Work and School were combined in one response category.

**Recreation and visits were combined in one response category.

4.10 CHOICE OF TAXI COMPANY

Of 270 taxi users interviewed, 86% generally call a particular taxi company when they want to take a taxi trip. Some have more than one company which they call. Table 4-19 shows the reasons users gave for preferring one company over others. Various aspects of service and familiarity are the most frequent reasons given.

TABLE 4-19. REASONS FOR PREFERING A PARTICULAR TAXI COMPANY

<u>Reason</u>	<u>Percent of Users</u> (n=231)
Better service	68%
Helpful drivers	27
Know them	12
Lower fares	11
Arrive quickly	4
Other	11
No reason	17

One fact which confirms the lack of importance attached to getting the lowest possible fare is that the company most preferred by users also has the highest fares of the three major companies (\$1.00 drop covering one-sixth mile, and \$1.20 per mile thereafter, compared to a \$1.00 drop covering one-fifth mile, and \$1.00 per mile thereafter for the other two major companies). Since this is also the largest taxi company in Seattle, the result is not too surprising.

5. PROVIDER IMPACTS

5.1 PROGRAM COST

Two elements of cost are considered: subsidy cost and administrative cost. Subsidy cost is the money paid to taxi companies for rides provided. Administrative cost includes all other aspects of overseeing, marketing, and carrying out the scrip program. Because the program began over two years ago, no attempt has been made to reconstruct start-up costs.

5.1.1 Subsidy Cost

In 1980 Metro redeemed \$270,402 in scrip turned in by taxi companies, compared to only \$76,496 in 1979. For 1979, 40% of the scrip value was a subsidy from Metro totaling \$30,598. For 1980, 40% of the value of scrip sold before June 1, 1980 and 60% of the value of scrip sold thereafter was a subsidy from Metro. By assuming that all the scrip sold as of June 1, 1980 was eventually used in the same year, the 1980 subsidy has been estimated at \$149,000.

In 1981, the total amount of scrip redeemed reached \$722,389. Scrip was sold at a 60% through August 1981, and at a 50% beginning in September 1981. Assuming that all scrip sold as of September 1, 1981 was used in the same year yields an estimate of \$416,689 for Metro's subsidy cost in 1981.

The subsidy per trip has risen steadily, both due to the increase in the subsidy level in June 1980 and an increase in average fare per trip (see discussion in Sections 4.2 and 4.4). For 1979, at an average fare of \$3.97, the 40% subsidy per trip was \$1.59. In early 1980 (January through May), with an average fare of \$4.76, Metro's 40% subsidy was \$1.90 per trip. In late 1980 (July through December, leaving out the transition month, June), with an average fare of \$5.57, Metro's 60% subsidy was \$3.34 per trip. In early 1981, with an average fare of \$5.41, the 60% subsidy was \$3.25 per trip. In late 1981, with an average fare of \$5.85, the 50% subsidy was \$2.93 per trip.

Metro has used the subsidy rate (or scrip price) as a major means of controlling cost. In the first year, 1979, with a 40% subsidy, use was low and the program did not use up its budget.

In 1980, the subsidy was increased, marketing increased, and more outlets added. Participation grew rapidly, so that in mid-1981 a \$200,000 deficit was projected for 1981. Metro's primary response was again to adjust the subsidy rate. Both times, when the subsidy rate was changed the eligibility requirement for the disabled was also changed. At least the first time this appears to have had a relatively minor impact.

5.1.2 Administrative Cost

As shown in Table 5-1, it is costing Metro about \$6,300 per month to run the scrip program, exclusive of subsidies. The figures in Table 5-1 are based on "typical" values as related to Crain & Associates, Inc. by Metro staff in interviews conducted during May 1981. The total amounts to \$.62 per trip at early 1981 usage rates which averaged 10,100 trips per month. Further detail on the labor cost is shown in Table 5-2. These costs are offset by revenues of about \$200 per month from the \$1.00 fees paid for ID cards by new registrants.

TABLE 5-1. SUMMARY OF MONTHLY ADMINISTRATIVE COSTS
(May 1981)

<u>Labor*</u>		
Planning	\$ 709	
Office management	375	
Coordination & liaison	458	
Promotion & marketing	166	
Client registration	231	
Scrip printing & distribution	113	
Scrip sales	1,171	
Scrip redemption	<u>552</u>	
	TOTAL LABOR	\$3,775
<u>Non-Labor</u>		
Advertising	\$ 250	
Outreach	250	
Scrip printing	750	
ID card printing	22	
Camera film	175	
Laminating materials	120	
Computer time	50	
Travel	36	
Payments to outlets (\$.40 per book)	<u>831</u>	
	TOTAL NON-LABOR	<u>2,484</u>
	TOTAL ADMINISTRATIVE COST	\$6,259

*Labor cost includes fringe benefits and distributed paid time off. Overhead for facilities and other fixed costs is not included.

TABLE 5-2. METRO LABOR PER MONTH BY TASK AND CATEGORY

Labor Category	Task:	Program planning	General office management	Coordination & liaison	Promotion & marketing	Client registration	Scrip printing & distr.	Scrip sales	Scrip redemption	Total
Customer Relations Representative Supervisor, Customer Assistance			9			3		3		15
			10	4						14
Manager of Transit Development Supervisor of Transit Planning Transit Planner				1						1
				3						3
		35		15						50
Supervisor, Market Planning Secretary Telephone Representatives					1					1
		10		1						11
				12		1				13
Scrip Salesperson Computer Entry Operators Programmer/Analyst						10		90		100
						9		9		18
						2		2		4
									.5	1
Chief Cashier & Crew Pass Sales Coordinator Assistant Pass Sales Coordinator							4			4
							2		2	4
										1
Senior Clerk, Cust. Relations Clerks Supervisor, Community Sales & Distribution								10		10
								30		30
								2		2
Accountant Accounting Supervisor Manager of Accounting Staff Assistant Clerk Intermed. Clerk									24	24
									1	1
									1	1
									2	2
									2	2
TOTAL HOURS		45	19	23	14	24	7.5	146	34.5	313
TOTAL \$		\$709	\$375	\$458	\$166	\$231	\$113	\$1171	\$552	\$3775

5.2 EFFECT ON TAXI COMPANIES

The success of any user-side subsidy program depends to a great degree on the extent to which it is good business for the transportation providers, who in this case are the taxi companies. An effort was made to determine the impact of the scrip program on participating taxi companies and the companies' attitudes toward the program. Issues which were addressed include: percentage of total business and overall effect on profitability, the effect of record keeping requirements, driver attitudes, and any effect on insurance rates. The evaluation is based on Metro's records of total scrip reimbursement by each company, and on interviews of owners or management of seven taxi companies conducted by the evaluation contractor in May 1981. The seven companies interviewed included the three largest, which together account for over 90% of scrip used, two medium-size companies, and two one-cab operations. Table 5-3 provides a summary of the interviews regarding the issues just listed.

Although 26 taxi companies participate in the program, the market is dominated by a few large companies. Many of the smaller companies are one- or two-cab operations, which were begun following the removal of entry restrictions in July 1979. Table 5-4 shows the approximate average monthly scrip submitted for reimbursement in 1980 and 1981, and each company's 1981 market share.*

The overall impact has been much greater on the larger companies than the smaller companies. The larger companies' volume of scrip business tends to be larger in actual dollars and as a percentage of total receipts. The large and medium-size companies are predominantly lease operations, so that the companies do not know total receipts with any precision. Based on management estimates, and Metro's records of scrip reimbursement, scrip accounts for 8% to 10% of total volume for the large companies, and 1% to 3% of total volume for the medium-size companies. One of the one-cab companies has several steady scrip customers, who provide a little over 10% of total business, while the other one-cab company derives about 2% of its revenues from scrip.

For the most part the owners or managers had positive things to say about the program. The interviewees may have been deliberately restrained in their criticisms, not wishing to complain too

*The figures are approximate for two reasons. First, taxi companies do not submit the scrip for reimbursement on a fixed schedule. Therefore, scrip reimbursed in 1980 does not necessarily reflect exactly 12 months of operation. The 1981 figures are based on totals as of May 20, 1981. Since most companies submit scrip at most once per month, and there is some delay between use and submittal, it was assumed that the 1981 totals reflect four months of actual business.

TABLE 5-3. SUMMARY OF TAXICAB INTERVIEWS

Company	No. of Cabs	Description of Operation	Scrip as % of Volume	Effect on Profitability	Record Keeping	Driver Attitudes
Farwest	160	24 hour throughout King County. Drivers lease or own cabs.	9-10%	Major. "One of the greatest things that ever happened."	25 staff hours/week. Cancelling all the scrip is time consuming.	They like it because it is guaranteed payment.
Yellow	81	24 hours in Seattle, Bellevue & Kirkland; also airport. 56 cabs owner-operated; 25 cabs employee operated.	~7%	"Good for the industry. A great program."	Complicated. But "not unreasonable." Makes scrip trips more expensive.	They don't like having to record ID #'s. (Until April 1981 Yellow was only company which enforced this requirement).
Graytop	38	24 hours throughout King County. Lease drivers.	~8%	No data	"Several staff hours per week. Not very burdensome."	Majority like scrip trips because payment is more secure.
Plaza	10	24 hours. Mainly in Snohomish County. Lease drivers.	1-2%	Marginal. Would like to build up scrip clientele and get program in Snohomish County.	"No big deal," except for counting scrip.	Less work than other public subsidy programs.
Pioneer	6	24 hours throughout King County. Lease drivers.	2-3%	Positive	Makes scrip clients more expensive than others.	Scrip passengers same as others.
Paul's	1	Downtown area, variable hours. Mostly hail trips. Owner operated.	~11%	No data	Easy for regular customers.	Feels fine about program and his few regular scrip customers.
City	1	Mostly around bus depot, 6 AM-4 PM. Mostly hail trips. Employee driver.	~2%	Marginal	About one day a month.	Has same regular scrip customers. Treats them like others.

TABLE 5-4. SCRIP VOLUME AND MARKET SHARE OF TAXI COMPANIES

Company	Scrip Reimbursed/ Month		1981 % of Scrip Market
	1981	1980	
Farwest	\$33,100	\$14,300	64%
Graytop	6,600	4,000	13
Yellow	6,500	3,300	13
Hawley's Northend	2,300	700	4.4
Chief's	900	--	1.7
OK	400	300	0.8
White Center/Green & White	400	400	0.8
Lucky Lady	400	--	0.8
Hawley's Northend	300	300	0.6
Harbor/Blue Top	200	--	0.4
Westcoast/Quick	200	200	0.4
Paul's	110	200	0.2
Plaza	110	90	0.2
Brown & White	90	100	0.2
Pioneer	90	30	0.2
Eastside	70	--	0.1
Sno-King	70	--	0.1
World Control, Inc.	40	--	0.1
Flash	30	--	0.1
Hustle	30	--	0.1
City	20	20	*
White	20	--	*
Gatling	10	--	*
Redmond	10	10	*
	<u> </u>	<u> </u>	
TOTAL	\$52,000		

*Less than 0.05%.

much about a program with which, on the whole, they seem very happy. Some may have been reserved in talking to an "outsider." The negative remarks made tended to be tempered by qualifications or philosophical remarks about government programs. Most of the negative comments concerned record keeping and abuse of the program. Regarding record keeping, estimates of time varied widely. The most burdensome aspect seemed to be counting and cancelling the scrip, which two interviewees mentioned as very time consuming. No one felt the record keeping was so burdensome as to outweigh the positive features of the program.

The representative for Yellow remarked on the drivers' dislike of having to record scrip ID numbers for each trip. This requirement, which is contained in the contract all the providers have with Metro, was not enforced by Metro until April 1981, and then only to provide data for this evaluation. Until then, Yellow was the only company which consistently required its drivers to record ID numbers. The Yellow representative may have summed up feelings about record keeping when he described the scrip program as "a simpler program than I would expect from a government agency."

Considering the overall volume of business and record keeping, all the representatives felt the program had either a positive, or at least neutral, effect on overall profitability. The two largest companies were among the most positive in their assessments, as might be expected from the relatively large role played by scrip revenues for those companies. From the scrip registrant survey, it is known that only 52% of scrip users claim to use taxis more often than they did before joining the program. Since scrip generally accounts for less than 10% of most companies' business, any overall revenue increase can only amount to a few percent. One possible negative impact which was investigated was any effect of the scrip program on insurance rates. The contract Metro has with participating taxi operators requires that Metro be named as co-insured under the operators' insurance policy. This apparently caused some initial apprehension and, according to an earlier evaluation,* may have dissuaded some companies from participating in the program. However, none of the company representatives reported any effect on insurance rates.

Part of the taxi companies' positive attitude toward the Metro scrip program can be attributed to the improvement it represents, compared to the old City of Seattle scrip program which it replaced. The City program was similar to Metro's, except that the discount was only 20%, and the program was funded by a tax on the taxi companies. The companies are naturally very happy that Metro has taken over the funding of the program, as well as having expanded its coverage and increased the subsidy.

*Sheri Reder, Daniel Carlson, and Caroline Feiss, "An Evaluation of Metro's Special Transportation Service Program for the Elderly and Handicapped," Seattle-King County Division on Aging, January 1980.

6. CONCLUSIONS

As noted in the Introduction, the taxi scrip program in Seattle is distinguished from other taxi user-side subsidy programs already studied by SMD in four major ways. These are: 1) the size of the urban area involved; 2) the lack of any limitation on use of the program for most of the period studied; 3) the use of an income test for eligibility; and 4) the availability of extensive transit service, including lift-equipped service for the handicapped. Each of these distinguishing features raises issues. Based on the descriptions and analyses presented so far, this chapter presents some conclusions which may be reached on those issues.

6.1 USER-SIDE SUBSIDY IN A LARGE URBAN AREA

The Metro taxicab scrip program appears to be a "success" by most standards. It does not appear to have had noticeably more problems than the programs in the smaller cities studied by SMD; the sorts of difficulties likely to be associated with larger cities might include problems in policing contracts with providers, fraud by providers or users, and distribution problems. The Seattle program does not stand out as having had unusual difficulties in any of these areas. In fact, Metro has taken a fairly relaxed attitude toward enforcing contract provisions, such as the requirement to keep detailed logs. Initially, there was no limit on scrip use, yet only a handful of abuses seem to have occurred. Metro's response has been to set a very flexible and quite liberal ceiling on scrip purchases. Similarly, the income requirement has been implemented using an honor system, with, apparently, very minor levels of cheating. In none of these cases has Metro's "easy-going" approach led to the sort of big-city abuses that some people might expect.

It might be thought that a user-side subsidy program in a large city would encounter problems due to the size of program required. The Seattle program has been larger than others studied so far, but not as much as might be expected, as shown in Table 6-1. Several factors may be at work. One is the income limitation, which works to reduce the size of the eligible population. Another is the availability of extensive transit service, which reduces the demand for taxi service. Finally, taxi rates in Seattle, as in most larger cities, are quite high, which would tend to discourage use.

TABLE 6-1. COMPARISON USER-SIDE SUBSIDY PROGRAMS.

<u>Program</u>	<u>Eligible Population</u>	<u>Annual Trips Provided</u>
Danville (1976)	7,500	89,900
Montgomery (1979)	21,000	36,187
Kinston (1979)	4,000	36,832
Lawrence (1979)	12,600	96,954
Kansas City (5/77-4/78)	58,000	56,383
Los Angeles Harbor Area (12/78-11/79)	30,000	59,323
Seattle (1981)	78,000	130,000

Source: Bruce Spear, et al., Service and Methods Demonstration Program Report, Report No. UMTA-MA-06-0049-81-12, December 1981.

One interpretation is that these features of Seattle mean the results have less transferability to a typical larger city environment than was hoped. On the other hand, most cities of Seattle's size or larger will have reasonably extensive transit service, and also high taxi rates. As a result, use of user-side subsidy programs may not increase proportionally with city size. In that case, larger cities may experience lower demand levels, and fewer administrative difficulties related to program size, than some undoubtedly fear.

6.2 NO LIMIT ON PURCHASES OR USE

The analysis in Section 4.2 showed that, even with no limits on purchase or use, the vast majority of registrants made very limited use of the program. A handful of individuals (fewer than 1%) use the program for frequent and, in some cases, lengthy trips. One problem with unlimited purchases, was that a few people made an illegal business of buying scrip and selling it at a profit to taxi operators. The worst offender has been apprehended. Nevertheless, Metro has instituted a purchase limit of \$2,000 per year, equivalent to about 370 one-way trips. Metro's experience indicates that fraud, rather than excessive use, is the primary danger of unlimited purchases.

The same three factors mentioned in the previous section may limit the transferability of this finding. They are: the income requirement, extensive transit, and high taxi rates. All three would tend to discourage very frequent use of the program. Cities with poor transit, low taxi rates, or no limit on the income of users, might find higher levels of frequent use.

6.3 INCOME REQUIREMENT

According to survey results few people with incomes over the established limits have registered for the program, despite the fact that no proof of low-income status is required. Unfortunately, no data from non-registrants are available to determine how many potential registrants are being excluded by the income requirement. By adopting an income limit already established by a state agency, Metro has avoided some potential administrative problems of an income test. By permitting registrants to qualify by self-declaration, with no proof of low income, Metro has further simplified matters, and, probably, avoided creating too much bad feeling. An evaluation conducted for the King County Division on Aging* in January 1980 recommended eliminating the income requirement for the severely disabled. When Metro followed this recommendation in April 1980 there was very minor apparent effect. The income requirement for the disabled was re-instituted in September 1981.

6.4 EXTENSIVE TRANSIT AND LIFT SERVICE

As shown in Section 4.9, scrip registrants make more use of transit, on the average, than they do of the scrip program. Taxis, which are still much more expensive than the bus, even with the use of scrip, appear to be used mostly on emergency trips and trips for which transit service is unavailable or very limited. More users use the program for medical trips than any other purpose. The availability of extensive transit service has probably kept registration and use at lower levels than would otherwise be the case. Registrants who have difficulty using buses do use taxis more and buses less than others; however, they still use buses slightly more than they use taxis. Only 18% of users have switched any trips from the bus to taxis. Registrants who use the bus use taxis nearly as much as registrants who do not use the bus at all. In general, registrants do not seem to choose between taxis and buses so much as they use them for different types of trips.

Regarding the lift-equipped buses, although 30% of registrants report some difficulty in getting on or off a regular bus, and 70% of that group is aware of lift service, only 3% of registrants have ever used a lift on a Metro bus. The scrip program mostly serves the non-disabled elderly, or elderly whose disabilities do not allow them to use lift buses. Lift users are a very small group compared to scrip users. They are younger and more mobile than scrip users. Forty-five percent of lift users are registered for scrip, but, since there are so few lift users, they constitute a very small percentage of scrip users.

*See note, page 51.

SEATTLE USER-SIDE SUBSIDY
SURVEY OF PROJECT REGISTRANTS

ID _____

DOB _____

Telephone # _____

Name _____

CALL RECORD

Date	Time	Outcome

VERIFY TELEPHONE NUMBER AND ASK FOR SCRIP REGISTRANT BY NAME

Hello, my name is _____, and I'm doing a survey for Metro about Metro's Taxicab Scrip Program. According to our records, you registered for the Scrip Program in _____ . Is that correct?

RESPONDENT'S REGISTRATION DATE

- 1. Yes --GO TO QUESTION 1
- 2. No

VERIFY THAT RESPONDENT HAS REGISTERED FOR THE SCRIP PROGRAM. IF NOT, THEN TERMINATE THE INTERVIEW.

1. Do you currently use Metro scrip to pay for taxi trips in the Seattle area?

- 1. Yes --SKIP TO QUESTION 3
- 2. No

2. IF NO, When was the last time you used scrip to pay for a taxi trip?

- 1. Within the last month-- Go to Question 3.
- 2. Within the last 6 months
- 3. Within the last year
- 4. More than a year ago

2a. Why did you stop using scrip?

5. Never used scrip

SKIP TO QUESTION 14

3. Where do you usually buy your scrip booklets?
1. By mail
 2. At the Metro Customer Assistance Office
 3. At the Mayor's Office for Senior Citizens
 4. Albertsons
4. When you buy scrip, how many \$10 booklets do you usually get at one time?
- _____
5. Altogether, about how many booklets do you buy in a typical month?
- _____
6. Since you've started using scrip, have you ever paid all or part of your taxi fare with cash instead of scrip?
1. Yes
 2. No --SKIP TO QUESTION 7
- 6a. IF YES, Under what conditions do you pay with cash instead of scrip?
1. Ran out of scrip
 2. Travelled with non-scrip user
 3. Taxi wouldn't accept scrip
 4. Other: _____
SPECIFY
- 6b. IF YES, How often would you say you pay with cash instead of scrip? Is it . . .
(READ LIST)
1. Nearly all the time
 2. More than half the time
 3. About half the time
 4. Less than half the time
 5. Almost never
7. Do you ever share your taxi with another person?
1. Yes
 2. No --SKIP TO QUESTION 8
- 7a. IF YES, How often would you say you share your taxi with someone? Is it . . .
(READ LIST)
1. Nearly all the time
 2. More than half the time
 3. About half the time
 4. Less than half the time
 5. Almost never

8. Because of the scrip program, do you now travel by taxi more often, less often, or about the same as you did before you joined the scrip program?

- 1. More often
- 2. Less often. Why is that? _____

- 3. About the same _____
- 4. Don't know _____

SKIP TO
QUESTION 9

8a. IF MORE OFTEN, Are there any trips that you make now, which you would not be making if it were not for the scrip program?

- 1. Yes
- 2. No -- SKIP TO QUESTION 8C

8b. IF YES, What types of trips do you now make because of the scrip program that you wouldn't have made before?

- 1. Work or school
- 2. Shopping
- 3. Medical related
- 4. Nutrition Programs
- 5. Personal business
- 6. Visit friends or relatives
- 7. Entertainment or recreation
- 8. Other: _____

SPECIFY

8c. IF MORE OFTEN, Are any trips that you now make by taxi ones which you used to make by some other form of transportation?

- 1. Yes
- 2. No -- SKIP TO QUESTION 9

8d. IF YES, Did you used to . . . (READ LIST AND CIRCLE ALL THAT APPLY AND ASK, "Why did you switch from _____ to the taxi?")

- 1. Walk _____
- 2. Drive yourself _____
- 3. Have someone drive you _____
- 4. Take the bus or trolley _____
- 5. Use a social service van _____
- 6. Other: _____

9. Because of the scrip program, do you now travel to different places than you used to go before?

- 1. Yes--9a. Why didn't you go to these places before?

- 2. No _____

10. In June 1980 the price of a scrip booklet was lowered from \$6 to \$4. When the price was lowered did you start buying more scrip than before?

- 1. Yes → SKIP TO QUESTION 10b
- 2. No
- 3. Joined after June 1980

10a. Did you join the scrip program because the price was lowered?

- 1. Yes
 - 2. No
- } SKIP TO QUESTION 11

10b. Did you start to spend your scrip more quickly?

- 1. Yes
- 2. No

10c. Did you start to take more taxi trips?

- 1. Yes
- 2. No

10d. Did you start taking longer taxi trips?

- 1. Yes
- 2. No

11. Do you generally call a particular taxi company when you want to take a taxi trip?

- 1. Yes
- 2. No --SKIP TO QUESTION 12

11a. IF YES, Which taxi company is that?

PRECODE LIST OF MAJOR TAXI COMPANIES

11b. IF YES, Why do you prefer that company?

- 1. Better service
- 2. Lower fares
- 3. More helpful drivers
- 4. Other: _____
SPECIFY
- 5. No particular reason
- 6. Don't prefer them

12. Do you ever use Greytop or Far West lift-equipped taxi vans?

- 1. Yes
- 2. No --SKIP TO QUESTION 13

12a. Would you say that you call the taxi van instead of a regular taxi . . . (READ LIST)

- 1. Nearly all the time
- 2. More than half the time
- 3. About half the time
- 4. Less than half the time
- 5. Almost never

13. Do you feel that you receive the same quality of service when you use scrip as you would if you were to pay with cash?

- 1. Yes
No--Do you feel the service is better or worse for scrip users?
- 2. Better
- 3. Worse

13b. IF BETTER OR WORSE, What things in particular are (BETTER/WORSE) about the taxi service for scrip users?

1. Reliability
2. Travel time
3. Waiting time
4. Driver courtesy
5. Other _____

SPECIFY

THE FOLLOWING QUESTIONS ON GENERAL TRAVEL ARE TO BE ASKED OF BOTH USERS AND NON-USERS OF THE SCRIP PROGRAM:

14. I'd like to ask you a few questions about your recent travel in the Seattle area. Thinking back over the past week, which of the following forms of transportation have you used to travel in the Seattle area? Did you . . . (READ LIST AND CIRCLE ALL THAT APPLY):

1. Walk
2. Drive yourself
3. Have someone drive you
4. Take the bus or trolley
5. Use a social service van
6. Take a taxi
7. Other: _____

SPECIFY

8. Out of town → SKIP TO QUESTION 16
9. No trips

15. How many one-way trips did you make last week by . . . (NAME EACH MODE CIRCLED IN QUESTION 14 AND RECORD ANSWERS BELOW):

	trips/week
Walking	_____
Driving yourself	_____
Having someone else drive you	_____
Taking the bus or trolley	_____
Using a social service van	_____
Taking a taxi	_____
Other	_____
Total trips (<i>sum individual modes</i>)	_____

VERIFY THAT THE RESPONDENT HAS GIVEN ONE-WAY AND NOT ROUND TRIPS.

IF TAXI IS CHECKED IN QUESTION 14 OR 15, SKIP TO QUESTION 17.

16. ASK ONLY IF TAXI WAS NOT TAKEN WITHIN THE LAST WEEK:

You say that you didn't take any taxi trips last week. Could you tell me when was the last time you used a taxi to travel in the Seattle area?

1. Within the last week --REPEAT QUESTION 15 FOR TAXI
2. Within the last month
3. Within the last 6 months
4. Within the last year
5. More than a year ago
6. Never used taxi
7. Don't remember

→ SKIP TO QUESTION 22

17. What types of trips do you generally use a taxi for? Do you use it for . . . (READ LIST AND CIRCLE ALL THAT APPLY):

1. Work or school
2. Shopping
3. Medical related (including Nutrition Programs)
4. Personal business
5. Visit friends or relatives
6. Entertainment or recreation
7. Other: _____

SPECIFY

17a. Why do you use a taxi for these particular types of trips?

(CIRCLE ALL THAT APPLY)

1. It's convenient
2. It's less expensive
3. Other modes don't go there
4. I can carry packages easier in a taxi
5. I am often unable to use other modes
6. Other: _____

SPECIFY

18. Do you ever go somewhere by a means of transportation other than the taxi, and then take a taxi home?

1. Yes
2. No

19. Do you ever take a taxi going somewhere, and then return home by some other means of transportation?

1. Yes
2. No

20. IF YES TO 18 OR 19, What methods of transportation do you use for the part of your trip which is not made by taxi?

(CIRCLE ALL THAT APPLY):

1. Walk
2. Drive
3. Auto passenger
4. Bus or trolley
5. Social service van
6. Other: _____

SPECIFY

21. What is the fare for the most frequent trip you make by taxi? (READ CHOICES ONLY IF NECESSARY):
1. Under \$2.50
 2. \$2.50 - \$3.49
 3. \$3.50 - \$4.49
 4. \$4.50 - \$5.49
 5. \$5.50 - \$6.49
 6. \$6.50 - \$7.49
 7. \$7.50 - \$8.49
 8. \$8.50 - \$9.49
 9. Over \$9.50 --(WRITE IN AMOUNT): _____
22. The next few questions concern Metro's regular bus service. Is there a Metro bus stop within a five-minute walk from your home?
1. Yes
 2. No
 3. Don't know
23. Do you have any disability or medical condition that makes it difficult for you to use buses?
1. Yes -- 23a. What is that disability? _____
 2. No
24. Do you use any special aids to help you get around?
1. Wheelchair
 2. Walker
 3. Crutches
 4. Cane (for walking)
 5. Cane (for blindness)
 6. Seeing-eye dog
 7. Car with special controls
 8. Artificial limbs
 9. Braces
 10. An escort
 11. Other: _____
SPECIFY
 12. No aids.
25. Do you have difficulty performing any of the following activities? (READ LIST AND CIRCLE ALL THAT APPLY):
1. Walking more than a block
 2. Waiting outside for a bus
 3. Getting on or off a regular bus
 4. Sitting down or getting up
 5. Standing in a moving bus
 6. Holding onto coins, tickets or handles
 7. Reading signs
 8. Hearing announcements
 9. No difficulties

IF RESPONDENT HAS NO DIFFICULTY GETTING ON OR OFF A REGULAR BUS, SKIP TO QUESTION 30.

26. IF GETTING ON OR OFF A REGULAR BUS IS DIFFICULT:

Metro has equipped some of its buses with lifts in the front door, so you can get on and off without using the steps. Did you know about these lift-equipped buses?

1. Yes
 2. No
 3. Not sure
- SKIP TO QUESTION 30

27. IF YES, Is lift-equipped bus service available for any of the trips you usually make?

1. Yes
 2. No
 3. Don't know
- SKIP TO QUESTION 30

28. IF YES, Have you ever used the lift to get on or off a Seattle Metro bus?

1. Yes
 2. No--What would you say is the main reason why you don't use the lifts?
- _____
- _____

29. IF YES TO QUESTION 28, Thinking back to last week, how many times did you use the lift bus service. Please count each time you got on a bus using the lift. Also, count each time you transferred to another bus as a separate boarding.

_____ lift bus trips/week _____ trips/month

30. Finally, I'd like to ask you just a few more questions about yourself to help us in combining your answers with those of other scrip users.

What is your current employment status?

1. Employed full time (32 hours per week)
2. Employed part time (less than 32 hours per week)
3. Student (including job training program)
4. Retired
5. Homemaker
6. Unemployed
7. Other

31. How many persons, including yourself, live together in your immediate household?

_____ persons in household

32. How many cars, trucks, or vans are owned by, or are available to your household?

_____ vehicles

33. Do you have a current driver's license?
1. Yes
 2. No --SKIP TO QUESTION 34
- 33a. IF YES, Do you generally have a vehicle available to you whenever you want it?
1. Yes
 2. No
34. I'm going to read a list of income categories. Please stop me when I get to the category that represents the combined annual income of your household before taxes. (READ LIST)
1. Under \$5,000
 2. Between \$5,000 and \$7,500
 3. Between \$7,500 and \$10,000
 4. Between \$10,000 and \$20,000
 5. Between \$20,000 and \$30,000
 6. Over \$30,000
35. Please tell me which of the following racial or ethnic groups you belong to.
1. White
 2. Black
 3. Hispanic
 4. Asian
 5. American Indian
 6. Other: _____
SPECIFY
36. SEX (BY OBSERVATION)
1. Male
 2. Female
37. Finally, do you have any other comments or suggestions that you would like to to pass on to Metro?

Thank you for your time and help. Metro will be using the information you provided to help plan future service for Seattle.

APPENDIX B
MONTHLY OPERATING STATISTICS

Column No.:	1	2	3	4	5	6	7	8	9	10	11	12
	# of people registering	Total people registered	\$ of scrip sold	Scrip sold per registrant	Scrip reimbursed	Scrip reimbursed per registrant	Total scrip sold	Total scrip reimbursed	Total scrip outstanding	Scrip outstanding per registrant	# of trips	Trips per registrant
Month/Year	Σ1	Σ1	Σ3	3 ÷ 2	Σ5	5 ÷ 2	Σ3	Σ5	7-8	9 ÷ 2	trips	11 ÷ 2
December 1978	209	209	3,770	18.04	677.90	3.24	3,770	677.90	3,092.10	14.79	207	.99
January 1979	612	821	6,700	8.16	1,139.80	1.39	10,470	1,817.70	8,652.30	10.54	383	.47
February	495	1,316	6,940	5.27	2,792.60	2.12	17,410	4,610.30	12,799.70	9.73	852	.65
March	455	1,771	6,860	3.87	5,697.90	3.22	24,270	10,308.20	13,961.80	7.88	1,620	.91
April	357	2,128	5,130	2.41	5,169.00	2.43	29,400	15,477.20	13,922.80	6.54	1,477	.69
May	271	2,399	8,630	3.60	6,542.10	2.73	38,030	22,019.30	16,010.70	6.67	1,809	.75
June	121	2,520	5,120	2.03	6,319.20	2.51	43,150	28,338.50	14,811.50	5.88	1,805	.72
July	207	2,727	8,320	3.05	5,686.70	2.09	51,470	34,025.20	17,444.80	6.40	1,435	.53
August	195	2,922	9,820	3.36	9,154.30	3.13	61,290	43,179.50	18,110.50	6.20	2,068	.71
September	128	3,050	8,340	2.73	8,143.70	2.67	69,630	51,323.20	18,306.80	6.00	1,863	.61
October	183	3,233	10,060	3.11	8,341.30	2.58	79,690	59,664.50	20,025.50	6.19	1,846	.57
November	271	3,504	6,260	1.79	8,229.70	2.35	85,950	67,894.20	18,055.80	5.15	1,995	.57
December	185	3,689	6,200	1.68	8,601.70	2.33	92,150	76,495.90	15,654.10	4.24	1,909	.52
January 1980	296	3,985	9,920	2.49	8,924.60	2.24	102,070	85,420.50	16,649.50	4.18	1,899	.48
February	143	4,128	10,640	2.58	8,813.60	2.14	112,710	94,234.10	18,475.90	4.48	1,827	.44
March	184	4,312	8,730	2.02	9,430.80	2.19	121,440	103,664.90	17,775.10	4.12	2,069	.48
April	84	4,396	10,600	2.41	10,480.00	2.38	132,040	114,144.90	17,895.10	4.07	2,253	.51
May	77	4,473	10,400	2.33	10,410.20	2.33	142,440	124,555.10	17,884.90	4.00	2,048	.46
June	346	4,819	21,070	4.37	14,303.10	2.97	163,510	138,858.20	24,651.80	5.12	2,698	.56
July	287	5,106	25,660	5.03	20,554.50	4.03	189,170	159,412.70	29,757.30	5.83	3,952	.77
August	344	5,450	30,220	5.54	24,617.10	4.52	219,390	184,029.80	35,360.20	6.49	4,757	.87
September	500	5,950	40,070	6.73	32,691.40	5.49	259,460	216,721.20	42,738.80	7.18	5,827	.98
October	433	6,383	46,980	7.36	42,371.60	6.64	306,440	259,092.80	47,347.20	7.42	7,546	1.18
November	251	6,634	36,530	5.51	39,458.10	5.95	342,970	298,550.90	44,419.10	6.70	6,867	1.04
December	230	6,864	45,480	6.63	48,346.70	7.04	388,450	346,897.60	41,552.40	6.05	8,370	1.22
January 1981	745	7,609	50,640	6.69	51,570.40	6.78	439,090	398,468.00	40,622.00	5.34	9,603	1.26
February	621	8,230	56,520	6.87	48,953.10	5.95	495,610	447,421.10	48,188.90	5.86	9,116	1.11
March	484	8,714	59,060	6.78	59,680.10	6.85	554,670	507,101.20	47,568.80	5.46	11,114	1.28
April	445	9,159	65,650	7.17	53,578.10	5.85	620,320	560,679.30	59,640.70	6.51	10,236	1.12
May	303	9,462	61,880	6.54	46,760.00	4.94	682,200	607,439.30	74,760.70	7.90	8,562	.90
June	299	9,761	67,120	6.88	47,102.80	4.83	719,320	654,542.10	94,777.90	9.71	9,354	.96
July	288	10,049	66,770	6.64	72,935.90	7.26	816,090	727,478.00	88,612.00	8.82	12,944	1.29
August	Not available		85,750		84,437.80		901,840	811,915.80	89,924.20		14,997	
September			57,930		75,163.70		959,770	887,079.50	72,690.50		13,571	
October			52,560		49,604.90		1,012,330	936,684.40	75,645.60		8,633	
November			65,100		65,691.80		1,077,430	1,002,376.20	75,053.80		11,590	
December			82,500		66,910.20		1,159,930	1,069,286.40	90,643.60		10,924	

APPENDIX C
REPORT OF NEW TECHNOLOGY

This report describes the extension of subsidy procedures to an environment different from those which have typified earlier applications. No new technology is reported.

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